

**The Quality of Perceived Parental Relationships and its Link with Psychological
and University Adjustment in First-Year Students**

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DECLARATION

I hereby declare that this thesis has been composed by myself and that the work is my own.

Paula Graham

31/07/00.

ABSTRACT

Using a shortened form of the Parental Bonding Instrument (PBI) (Pedersen, 1994), the present study examined the link between the quality of perceived parental relationships and psychological and university adjustment in first-year students. The study examined the response profiles of 121 first-year university students aged 17 to 50 and compared the results to data from a large Australian normative study (Cubis et al, 1989). Links between parental style and levels of psychological and university adjustment were then examined, as were links between personality style and levels of psychological and university adjustment.

Significant differences between the subjects in the present study and the subjects in the normative study were found. One-way analysis of variance highlighted the contribution of four particular parental styles to levels of psychological and university adjustment. Results are discussed in relation to previous research and implications for university students' counselling services.

1. INTRODUCTION

1.1 Psychological and University Adjustment in First-Year Students

The aim of this section is to review the empirical research into university adjustment in first-year students and, more importantly, the determinants of psychological maladjustment in the university student population.

1.1.1 Psychological Maladjustment in the University Student Population

University students are subject to a wide variety of difficulties, emotional problems and minor mental illnesses. Some of these difficulties arise directly from university environmental factors, others result largely from the developmental processes of late adolescence. Many of the difficulties encountered by students during their first year or two at university reflect the attempt to adjust to a new social environment, a new mix of ethical values and a new set of demands.

First-year university students are particularly prone to develop emotional problems and minor mental illnesses. Kidd (1965) reviewed the literature and stated that, during this unknown life situation, the individual is newly confronted with the need for independence in thinking, decision-making and actions. A new approach has to be taken in studies and in living in a student community. A balance has to be struck between the demands of the university and a freedom never before experienced. Rook (1959) pointed out that this intellectual freedom may, in weaker individuals, lead to a sense of loss of direction and a feeling of inadequacy.

There have been several studies of the incidence of psychological maladjustment in the university student population, the results of which have been summarised by Ryle (1971),

who states that between one and two percent of students suffer serious psychological disturbance during their university career and a further 10 to 15 percent suffer psychological disturbance that merits some treatment. An additional finding of some of the incidence studies is that certain demographic and social characteristics are quite strongly related to the incidence of psychological maladjustment in the university student population. For example, both Kidd and Caldbeck-Meenan (1966) and Davies, Mowbray and Jenson (1968) found that the proportion of female university students suffering psychological disturbance was significantly greater than the proportion of male university students. Okasha, Kamel, Sadek and Lotaif (1977) found that university faculties with a practical course demonstrate a slightly lower rate for student psychological maladjustment than university faculties with exclusively theoretical courses. In 1980, O'Mahony and O'Brien conducted a survey of demographic and social characteristics of students referred to a university psychiatrist over a two-year period. These students were compared to a group attending university physicians. Significantly over-represented in the university psychiatrist's group were students over 30 years of age, Roman Catholic students, students who were totally financially dependent on their parents, medical and dental students and students who had repeated an academic year.

Students who present for treatment within the first two months at university are those suffering serious psychological disturbance (Entwistle, Percy and Nisbet, 1977; Malleson, 1954; Payne, 1969). Davidson and Hutt (1964) examined case records of 500 Oxford University students and found that those who had a positive family history of psychological maladjustment, who had a poor relationship with their parents, who underwent previous psychological investigation and who studied classics, English, law or music, were more likely to be referred to the psychiatric services.

Szulecka, Springett and de Pauw (1986) examined the usefulness of the 28-item General Health Questionnaire (GHQ) (Goldberg and Hillier, 1979) in screening a university student population for psychological maladjustment, and the results of offering psychological help to those first-year university students who, on the basis of high GHQ scores, seem to be at risk of suffering psychological disturbance. The benefit of short-term psychotherapy for such university students has been discussed by Dorosin, Gibbs and Kaplan (1976), Haggerty, Baldwin and Liptzin (1980) and Pinkerton and Rockwell (1982). Out of 1279 first-year university students, two matched groups potentially vulnerable to psychological disturbance were identified. One was left to its own resources, the other was offered psychological help; the effects of which were measured by the number of consultations with general practitioners, type of treatment and rate of student withdrawal from university. Although the students offered short-term psychotherapy had lower GHQ scores, fewer consultations with general practitioners at follow-up and fewer withdrew from university, due to the small numbers involved none of these differences achieved statistical significance.

Most students emerge from university with something gained, including a degree. But not all do so. Two main types of casualty are emotional and mental difficulty and academic failure. Most such casualties occur or begin at the first-year level. The most visible student 'casualties' are those who fail examinations and those who withdraw from university. Frequently, the two events go hand in hand. From the student's point of view, this represents wastage of personal opportunity - wastage accompanied by intense disappointment, despair and a sense of personal failure. From the community's point of view, this represents wastage in a material sense - wastage of money invested in universities and wastage of potential professional manpower.

Student academic failure and withdrawal from university are generally viewed as undesirable occurrences. In terms of the explicit goals of the university and the majority of enrolling students, 'wastage' represents thwarted ambition. However, some decisions to withdraw follow a reasoned weighing-up of the alternatives. Inevitably, some students decide that they are not yet 'ready' for university, some students are disillusioned by university and some find preferred opportunities elsewhere. Powell (1965), in a study of 'Harvard interrupters' who had experienced emotional and mental difficulty at university, found that the factors most closely related to successful return to university were duration of student absence (absence of less than a full year having a bad outcome) and the use made by the student of the interval. Those who had been in steady employment in a structured job did better than those who had worked in an unstructured way or who had not worked at all. With regard to academic failure, annual examinations are themselves often acknowledged as a source of high anticipatory stress resulting in a number of examination 'casualties' that are essentially due to non-academic causes. However, university students with a recent history of emotional problems or minor mental illnesses are also more likely to fail in their annual examinations.

More so than most other working groups, university students are repeatedly subject to formal and absolute tests of their ability to continue work. Because of this, and not so much the nature of his or her difficulty, the emotionally or mentally disturbed university student needs help when other young individuals may get by without it. This situation makes the effective prevention and treatment of emotional and mental difficulty among university students a matter of prime importance.

1.1.2 University Adjustment in First-Year Students

The majority of empirical research into university adjustment in first-year students has examined the problems of foreign first-year students adjusting to university life abroad. Relatively few studies have examined the university adjustment process of home first-year students (e.g., Brewin, Furnham and Howes, 1989; Cutrona, 1982; Fisher, 1988; Fisher, Frazer and Murray, 1985, 1987; Riggio, Watring and Throckmorton, 1993; Shaver, Furnham and Buhrmester, 1986). The fact that researchers have largely excluded home students, even as control subjects, when examining university adjustment in first-year students would seem to imply an assumption that they do not experience significant problems compared to foreign students.

A number of the findings of the empirical research into the university adjustment problems of foreign first-year students may aid in the understanding of the adjustment process of home students. In particular, some of the models borrowed from other areas of psychology in an attempt to explain the university adjustment problems of foreign first-year students may help to explain the university adjustment problems of home first-year students.

Models of Adjustment

Transition and change may be recurring features of life, but they are often experienced as stressful; affecting the individual's physical and psychological well-being. Transition and change may take different forms - from minor changes in environment to major transition of lifestyle - but a consequence common to all is life pattern discontinuity. Lifestyle and significant relationships are the two main life areas that are often affected and that often change dramatically. This is a consequence of both negative changes such as separation,

divorce, bereavement and family break-up and positive changes such as geographical relocation for academic reasons, change of job and marriage (Fisher, 1988).

A number of models have been applied in an attempt to explain the different reactions of individuals to transition and change. The following models - which are by no means mutually exclusive - have been applied by researchers in an attempt to explain the psychological reactions that take place following geographical relocation for academic reasons.

The Attachment and Loss Model

A great deal of empirical research has examined the psychology of attachment and loss, since the model was first proposed by Bowlby in 1969. The model has been applied to explain the psychological reactions that take place following experiences such as separation, divorce and being unemployed (Furnham, 1988). The model has also been applied in the study of loneliness (Weiss, 1974). The grief that is expected to follow the loss of a significant other, (and, by extension, a situation or role), has been regarded as a ubiquitous and stressful emotion, which may subside over a period of time as new, satisfying relationships (situations or roles) are established. Bowlby (1988) describes four stages in the grieving process: 1) the numbing stage; 2) the yearning stage; 3) the stage of disorganisation and despair and 4) the stage of reorganisation. However, not all individuals pass through these stages and there are, in fact, different psychological reactions to loss: normal; anticipatory; delayed; abbreviated; exaggerated and inhibited grief (Averill, 1968; Lindemann, 1994; Parkes, 1965). A great deal of empirical research has examined possible determinants of individuals' psychological reactions to loss, however, although a number of factors have been identified as being of significance, such

as gender, age and extent of attachment to the lost object, no definite conclusions have been drawn (Bochner and Furnham, 1986; Kubler-Ross, 1975; Parkes, 1965).

The application of the attachment and loss model to explain the psychological reactions that take place following geographical relocation can be attributed to Munoz (1980), who examined the psychological reactions of Chilean exiles in the UK (Bochner and Furnham, 1986). However, while an analogy between loss and exile or other compulsory geographical relocation seems acceptable, it seems difficult to accept an analogy between loss and geographical relocation for academic reasons.

There can be no doubt that there are elements of loss involved in leaving home for academic reasons, particularly if leaving home for the first time. The university student temporarily loses his or her family, a familiar environment, the financial security that home may provide, his or her social network and, possibly, roles and status, and has to build a new social network and establish new roles and a new status under new circumstances. The psychological reactions of the homesick or lonely university student may sometimes be similar to the psychological reactions of an individual who has experienced the loss of a significant other, however, several arguments mitigate against an analogy between loss and homesickness or loneliness following geographical relocation for academic reasons.

Firstly, while a number of university students may demonstrate psychological reactions similar to those of the bereaved, such as anxiety, depression, restlessness, inability to concentrate, etc., not all university students will do so. In fact, for the majority of university students, geographical relocation for academic reasons may be an enjoyable experience from beginning to end, and only a minority may react in such extreme

psychological ways. It seems likely that individual differences would play a role here. Secondly, the age of most university students is such that leaving home is regarded as a natural stage in the development of maturity. Thirdly, the decision to leave home for academic reasons is usually not a forced one but rather the result of a personal choice. Although the underlying motives may vary from individual to individual, the decision is usually theirs. Fourthly, although geographical relocation for academic reasons may be a stressful event, because of the major and minor life changes involved, leaving home need not necessarily involve a permanent separation. Home can be contacted and, in cases where there are no time- or finance-related difficulties, visited. Such loss cannot compare to the permanent separation from a significant other following bereavement. The loss experienced by university students is a temporary loss of physical proximity to home rather than a permanent loss of home (Fisher, 1988). Fifthly, although the attachment and loss model takes into account individual and cultural differences, it makes no specific predictions as to which types of individuals will suffer more or less grief, over what period of time or what form the grief will take (Bochner and Furnham, 1986).

The Negative Life Events Model

The basic assumption of the negative life events model is that recent negative life events, such as divorce, bereavement, etc., may have adverse effects on individuals' physical and psychological well-being (Rahe, Meyer, Smith, Kjaer and Holmes, 1964). The more recent negative events in one's life (and the more intense they are in terms of duration and consequences), the more likely it is that the individual will suffer from physical and psychological ill health. A number of researchers have argued that not only negative but also positive life events may affect the individual's well-being in an adverse way. Most of the studies have demonstrated a significant relationship between recent negative life

events and ill health (Dohrenwend and Dohrenwend, 1974), although, recently, researchers have argued that it is neither the number nor the intensity of negative life events that determines the likelihood that the individual will suffer from physical and psychological ill health, but rather the subjective perception/appraisal of life events as negative.

Geographical relocation for academic reasons often involves a number of significant life events - not necessarily negative - but nevertheless affecting the equilibrium of one's daily routine. These significant life events may involve a change in living conditions, home and family responsibilities, financial status, social activities, sleeping and eating habits, etc., (as reflected in responses to Holmes and Rahe's (1967) Social Readjustment Scale). However, although it was originally thought that the negative life events model would provide a straightforward explanation of adjustment problems associated with geographical relocation for academic reasons, the relationship seems to be much more complicated.

While it is likely that, for the majority of university students, geographical relocation for academic reasons will involve a number of major and minor life changes, it is equally likely that not all university students will experience adjustment problems: anxiety; depression; homesickness; loneliness; etc. Some will likely experience major adjustment problems, others will likely experience minor adjustment problems, but many will likely experience enjoyment from the beginning to the end of their studies. In other words, although the majority of university students will experience a number of life changes, the effect of these changes will not be the same for all.

Rahe et al (1964) have argued that recent life events may be a necessary, but by no means sufficient, condition for physical and psychological ill health. Individual differences should, perhaps, be taken into consideration here. Personality factors such as extroversion, introversion, neuroticism and psychoticism may act as moderators of the relationship between life events and physical and psychological ill health.

The Social Support Model

During the past 30 or so years, the supportive functions of social relationships have been examined in many areas of psychology. The basic assumption is that social support is associated with physical and psychological well-being, while its lack with ill health.

Most researchers have relied on Cobb's (1976) definition of social support, according to which social support is regarded as input informing the individual that he or she is cared for, held in high esteem and a member of a communication network with mutual obligations. Social support has also been defined in terms of its dimensions. Essentially, there are three recognised dimensions to social support: 1) affect; 2) affirmation and 3) aid. Social support has been widely used as a term to describe the mechanism by which interpersonal relationships may protect individuals from the adverse effects of stress. Empirical research to date has demonstrated that strong interpersonal relationships seem to lessen the risk of stress-induced physical and psychological ill health (e.g., Broadhead, Kaplan, James, Wagner, Schoenbach, Grimson, Heyden, Tibblin and Gehlbach, 1983; Caspi, Bolger and Eckenrode, 1987; Cassel, 1966; Cobb, 1976; Di Matteo and Hays, 1981; Eitinger and Strom, 1981; Gottlieb, 1981; Sarason and Sarason, 1985). The results of these studies, in combination with data from animal research, social-psychological analogue experiments and prospective surveys, suggest that social support contributes to

well-being (Cohen and Syme, 1985; Cohen and Wills, 1985; Kessler and McLeod, 1985; Turner, 1983).

A number of researchers have examined the role played by social support in adjustment following geographical relocation for academic reasons. The basic assumption is that by leaving the familiar home environment to study for a period of time, the university student is leaving behind the established social relationships which provide the support needed in times of stress. As a consequence of the immediate unavailability of these interpersonal relationships, the university student is more vulnerable to the adverse effects of stress, until he or she manages to establish new interpersonal relationships and a new communication network.

Although the social support model seems promising in terms of providing a straightforward explanation of adjustment problems following geographical relocation for academic reasons, more empirical research is necessary to clarify the supportive functions of social relationships.

The Social Skills and Culture-Learning Model

The social skills and culture-learning model was developed by Bochner (1972, 1981, 1982, 1986). The basic assumption is that, just as socially unskilled individuals are often like foreigners in their home country, individuals who have recently arrived in a new environment with a new culture often lack insight into the relevant social conventions. The elements that characterise social interactions include: following the gaze patterns of the individual with whom one is interacting; adopting an appropriate posture; adhering to the socially-determined rules of conversation, such as greeting individuals, asserting

oneself, self-disclosing, making and/or responding to requests and leave-taking; expressing thoughts and feelings, etc. (Bochner and Furnham, 1986; Trower, Bryant and Argyle, 1978).

According to Bochner and Furnham (1986), individuals who have recently arrived in a new environment with a new culture - often highly skilled in the conventions of their own society - suddenly find themselves in the frustrating situation of feeling socially unskilled, because they lack insight into how to negotiate everyday social interactions. Bochner and Furnham (1986) suggest that the solution to this problem is to identify the particular situations that trouble a particular individual and train the individual in the social skills that are necessary for effective social interactions in those situations. The social skills in which the individual is trained will depend: on the individual's demographic characteristics (gender, age, culture, social class, etc.); on the new culture whose social conventions the individual will be learning and on the reason for the individual's arrival in the new environment. Examples of social skills commonly trained include: non-verbal conversational behaviours, such as postures and gestures; assertive behaviours acceptable to and/or expected by the new environment/culture; the polite expression of need, etc. Furnham (1983) has argued that comparative studies have produced strong evidence of the effectiveness of social skills training.

However, while social skills training may be helpful to the individual with a very different culture to the new culture, it may not be so helpful to other individuals. Furthermore, while it may be argued that social skills training is effective during the initial stage of adjustment to a new environment, there is no evidence of its longer-term effectiveness. Neither is there any evidence of the maintenance of the effectiveness of social skills

training under stress, where a number of cognitive and personality factors and coping strategies are involved.

A well-designed, international study by Klineberg and Hull (1979) found that foreign students who were paired with home students demonstrated better adjustment to university life abroad. On the one hand, this finding may be due to their learning of the new culture's social conventions through the relationship. On the other hand, it may be that foreign university students who are already highly skilled in the conventions of their own society, are able to learn the new culture's social conventions more easily and quickly. If this is indeed the case, then social skills training is likely to be of more benefit to home university students who feel socially unskilled. More empirical research is necessary to clarify such findings.

The Lifespan/Psychosocial Transition Model

According to Ryle (1969), in essence, the difficulties of university students are not very different from those of the age-group as a whole. Basically, these are difficulties related to the tasks of growing up and of relinquishing dependence. Before the transition from adolescent to adult status is embarked on, the individual defines him- or herself largely in terms of his or her role in the family on which he or she is psychologically and economically dependent. After it is complete, the individual defines him- or herself largely in terms of his or her individual social roles defined by occupation, status and group membership and, in due course, in terms of the new family which he or she founds. This transition occurs during years of rapid biological change, marked by the eruption of new and powerful drives and the development of new strengths. These are years in which inner forces and outer demands change with bewildering speed, such that the individual's

body and his or her social roles are both unfamiliar. The task to be accomplished through all these changes is to develop and preserve a personal identity and a capacity to relate to others.

For the student, the transition from school and home to university represents a particularly abrupt alteration in status. From a position of relative dependence on and control by parents and teachers, he or she enters a community where supports and controls from authority figures are fewer and less powerful and where, at the same time, pressures from his or her contemporaries (all, like him or her, coping with a new independence with a mixture of anxiety and exultation) can be extreme. Not surprisingly, the most common difficulty encountered by the university student relates to his or her personal identity. If previous personality development has been reasonably smooth, and if the social pressures are not too extreme, the personal identity difficulties of this age-group will be coped with satisfactorily. Difficulties, when they do arise, will generally take the form of a re-enactment in the present situation of those conflicts not resolved at earlier stages. To some extent, this re-enactment is a normal aspect of adolescent behaviour. The transitions of adolescence are always rapid, but for the student entering university they are abrupt. Under these circumstances, it is not surprising that personal identity difficulties commonly occur and, in these, lecturers are particularly liable to be appointed 'to play the role of adversaries', or other roles, which repeat or complement those experienced or fantasised by the university student in his or her relationship with his or her parents. The psychoanalytically-minded observer can see, in some of these conflicts, symbolisations of infantile conflicts, for teaching, like feeding, can be emphatically 'spat out' and the call for a weekly essay can echo earlier regular demands.

Whenever the resolution of infantile conflicts is incomplete, the reality of the relationship of the student with his or her lecturer, and with the university, can become distorted.

Granted that a university must foster independence, make demands and measure the capacity of its students, and to this extent can all too easily be cast into the role of a depriving, demanding or threatening parent, how far can it avoid provoking disturbance in more vulnerable individuals? How far a university elicits neurotic responses from its students depends, Ryle (1969) believes, on its mode of operation and its atmosphere. If it offers cues too reminiscent of common childhood difficulties, if, to offer an over-simple analogy, the university is like a disturbed family, then it is more likely that the re-enactment of infantile conflicts will dominate the student's behaviour and block personal growth and academic progress. If, alternatively, it can provide a reasonable, concerned and flexible environment, if its demands and pressures are balanced by supports, if continuing attention is paid to the individual's feelings and views, then it is likely that the student, even if vulnerable, will be able to use his or her university years to further his or her personal development and to pursue his or her academic aims.

1.1.3 Empirical Research into University Adjustment in First-Year Students

Klineberg and Hull (1979)

In Klineberg and Hull's (1979) study, specific attention was paid to case histories which examined the adjustment of geographically relocated foreign students during the first university year. The reason for this specific attention was to elucidate the university adjustment process as well as to highlight sources of satisfaction and dissatisfaction, changes in attitudes and behaviours and ways of increasing university adjustment. A questionnaire, consisting of 155 items, was designed and completed by 2,536 foreign

first-year students in 11 countries. Klineberg and Hull's (1979) study was the first international study of university adjustment in foreign first-year students. Foreign first-year university students in Brazil, Canada, France, Germany, Hong Kong, India, Iran, Japan, Kenya, the UK and the USA completed the 155-item questionnaire. The questionnaire was designed internationally, to be as simple but comprehensive as possible and to enable the establishment of interrelationships between the various factors that may affect foreign students' adjustment process during the first university year. In addition, the study was partly longitudinal in design; the adjustment of 20 foreign students being examined throughout the first university year.

The results of the Klineberg and Hull (1979) study can be summarised as follows:

1. the most common reason given for geographical relocation (by 34% of foreign first-year students) was that obtaining a degree or diploma from a particular university was important;
2. foreign first-year university students are at high risk of experiencing stress;
3. any stress is more likely to be experienced in the form of physical symptoms than psychological symptoms;
4. any help sought is more likely to be medical than psychological, with the latter only being sought after all other resources have been exhausted;
5. there is considerable similarity in foreign first-year university students' stress-related symptoms;
6. although homesickness and loneliness were found among foreign first-year university students, these were not as widespread as depression (25% reporting that depression was/had been a source of difficulty for them);

7. there were considerable amounts of disappointment and discouragement when foreign first-year university students were open to, seeking and expecting more social contact with home university students than they found;
8. previous travel abroad was associated with increased adjustment among foreign first-year university students.

Although Klineberg and Hull (1979) argued that social contact with home university students was not the most important factor associated with increased adjustment among foreign first-year university students, they argued that it was one of the most important factors, together with previous travel abroad and information about the particular university obtained prior to geographical relocation. Klineberg and Hull (1979) concluded that empirical research is necessary to examine how personality factors may relate to these findings.

Cutrona (1982)

Cutrona (1982) conducted one of the first longitudinal studies of the psychosocial university adjustment of home first-year students. The study was based partly on data collected and analysed by Bragg (1979), for his doctoral dissertation, and partly on data collected and analysed by Russell, Peplau and Cutrona (1980) at the UCLA.

Cutrona (1982) argued that:

'Since college students all face relatively similar social situations, as contrasted with other 18-year-olds who take on a variety of jobs and living situations, they provide a unique research opportunity. In particular, studies of loneliness among college students may highlight individual differences in factors that contribute to successful social adjustment during an important developmental transitional stage' (p. 292).

In addition, Cutrona (1982) argued that it is important clinically, as well as theoretically, to understand factors that enable some university students to successfully socially adjust and prevent others from doing so. Since loneliness seems to be one important cause of student drop-out and may also contribute to alcohol and drug problems and student suicides (Newman, 1971), degree of loneliness experienced was Cutrona's (1982) main dependent variable of interest, as an indicator of successful or unsuccessful psychosocial university adjustment.

Cutrona's (1982) study had three main aims:

1. to examine possible causes of loneliness;
2. to examine the impacts of different types of social relationships on loneliness;
3. to examine the types of social relationship problems that are most likely to cause loneliness.

A total of 354 home first-year students were recruited to participate in two questionnaire completion sessions; the first took place two weeks after their arrival at university and the second took place seven weeks after their arrival at university. Seven months after their arrival at university, a subsample was contacted to participate in a third questionnaire completion session. A total of 162 home first-year university students (46%) were contacted to participate in the third questionnaire completion session. Degree of loneliness experienced was measured on all three occasions, using the UCLA Loneliness Scale (Russell, Peplau and Ferguson, 1978).

The results of Cutrona's (1982) study can be summarised as follows:

1. 75% of home first-year students had experienced at least occasional loneliness since their arrival at university. No gender differences in degree of loneliness experienced were found. Seven weeks after arrival at university, mean loneliness scores had dropped

significantly ($t = 2.61$, $d.f. = 161$, $p < .01$) and seven months after arrival at university, mean loneliness scores had dropped even more significantly ($t = 5.75$, $d.f. = 161$, $p < .001$). By the end of the academic year, only 25% of home first-year students reported having experienced loneliness during the past two weeks;

2. with regard to possible causes of loneliness, a distinction was drawn between precipitating and maintaining factors. Precipitating factors reported by the sample included: the break-up of a romantic relationship (15%); difficulties with a roommate or friend (11%); difficulties with coursework (11%); an isolated living situation (6%); rejection by a fraternity or sorority (3%) and medical problems (2%). One of the maintaining factors most frequently reported by the sample related to cognitive attributions of loneliness. Whereas one group, who overcame their loneliness during the academic year, attributed their loneliness to a wide variety of both personal and situational factors, another group, who remained lonely during the academic year, attributed their loneliness to their own enduring personality factors. While Cutrona (1982) argued that cognitive attributions of loneliness accounted for this finding, it could also be argued that personality factors may underlie it;

3. infrequent contact with life-long friends was a better predictor of loneliness than infrequent contact with relatives and parents. It seems likely that infrequent contact with life-long friends was indicative of a lack of satisfying friendships before the lonely home first-year student arrived at university;

4. home first-year university students who remained lonely during the academic year most frequently reported that only through 'finding a boyfriend/girlfriend' would they ever overcome their loneliness. Cutrona (1982) argued that either these individuals do require a romantic relationship to meet their particular psychosocial needs, or they are overlooking the potential of satisfying friendships for overcoming loneliness. It could also

be argued that these individuals hold beliefs that are indicative of maladaptive underlying cognitions, such as the cognition that only a romantic relationship can make one happy and, thus, overcome loneliness;

5. satisfaction with social relationships (with relatives, friends and partners) was a better predictor of loneliness than any quantitative measure of social involvement. Cutrona (1982) argued that if an individual perceives his or her social relationships as deficient, in contrast to those of his or her peers, he or she is likely to feel dissatisfied and, therefore, lonely. In other words, it seems that the cognitive process of comparing one's own social life to that of others plays a significant role in determining degree of satisfaction with social relationships. It also seems likely that the perception of satisfying or dissatisfying social relationships is determined by personality factors and associated cognitions;

6. when the mean loneliness scores of the home first-year university students who lived in group situations were compared to the mean loneliness scores of those who did not, no significant relationship between living situation and degree of loneliness experienced emerged. Neither were there any differences between lonely home first-year university students who overcame their loneliness during the academic year and those who did not in number of social relationships at the beginning of the academic year. Two weeks after their arrival at university, lonely home first-year students in both groups reported knowing an average of three to four individuals on campus well and an average of five to seven moderately well. Lonely home first-year university students who overcame their loneliness during the academic year had higher expectations of future social relationships than those who did not, despite their initial loneliness. In general, reported social attitudes were better predictors of recovery from loneliness than reported social behaviours.

Although Cutrona (1982) did not measure personality factors when examining the psychosocial university adjustment of home first-year students, reference was made to the results of a study by Russell et al (1978) which examined personality factors as possible causes of loneliness. The Russell et al (1978) study included measures of extroversion-introversion (Eysenck and Eysenck, 1975), assertiveness (Rathus, 1973), social self-esteem (Helmreich, Stapp and Ervin, 1974) and affiliative tendency and sensitivity to rejection (Mehrabian, 1970). Lonely university students were more introverted ($r = .46$), less assertive ($r = -.34$), had lower social self-esteem ($r = -.49$) and more affiliative tendencies ($r = -.45$) and were more sensitive to rejection ($r = .28$). As Cutrona (1982) argued, the picture of the lonely university student that emerges is of an individual who is unassertive, lacks social self-esteem and is sensitive to rejection.

Shaver, Furnham and Buhrmester (1986)

Four years after the Cutrona (1982) study, Shaver et al (1986) attempted to go further and identify vulnerable first-year students prior to their arrival at university. Shaver et al (1986) introduced their study by referring to a common finding in life transition studies; despite the generally disruptive effect of life change, some individuals cope better than others:

'While some are taxed to the point of illness or despair, others cope vigorously and quickly rebuild supportive social networks and satisfying life structures. In order to understand socially significant life transitions and find ways to deal with them effectively, we need a more detailed picture of both the general network changes involved and the personality characteristics associated with successful and unsuccessful adjustment' (p. 194).

The three questions that Shaver et al (1986) attempted to answer were:

1. what happened to first-year students' pre-university social networks? How much contact did first-year university students keep with their relatives and friends and was this contact helpful in alleviating loneliness and general distress?;
2. how were first-year students' university social networks constructed?;
3. who were the first-year students who remained lonely during the academic year and was it possible to identify these individuals prior to their arrival at university?

Shaver et al's (1986) longitudinal study involved four stages; stage one took place one month prior to arrival at university and stages two, three and four took place in the autumn, winter and spring academic terms respectively. The final sample consisted of 166 first-year students at the UCLA.

Shaver et al (1986) hypothesised that first-year university students with poor social skills would be vulnerable to chronic (i.e., trait) loneliness and would tend to attribute their loneliness to internal factors. The results of the Shaver et al (1986) study supported this hypothesis; first-year university students who perceived themselves as having poor social skills tended to be chronically lonely and to blame themselves for this. Given that the tendency to blame oneself for a variety of situations could be regarded as indicative of a particular underlying personality style, personality factors could, again, have accounted for this finding.

Jones and Moore (1987)

In 1987, Jones and Moore, again using a longitudinal design and first-year university students as subjects, examined the relationship between social support and loneliness. Jones and Moore (1987) drew attention to the fact that, despite the intuitive relevance of social support to loneliness, few studies have actually examined their relationship (e.g.,

Levin and Stokes, 1986; Sarason, Sarason and Shearin, 1986; Stokes, 1985). Seeking to extend the previous research in this area, Jones and Moore (1987) hypothesised that the extent to which a first-year student overcomes the initial loneliness associated with arrival at university is determined by his or her degree of success at maintaining pre-university social networks and constructing university social networks. In other words, Jones and Moore (1987) attempted to determine whether changes in degree of loneliness experienced over time were related to changes in quantity and quality of social support available.

A total of 142 first-year university students were assessed during their first week of lectures and again eight weeks later. Analysis of the collected data revealed that several aspects of social support (e.g., social network size and complexity and degrees of associated reciprocity and satisfaction) were moderately to strongly related to loneliness, both simultaneously and over time. In other words, those first-year university students who, at the beginning of the academic term, were most lacking in quantity and quality of social support available and most lonely, were generally the first-year university students who, at the end of the academic term, were most lacking in quantity and quality of social support available and most lonely. Jones and Moore (1987) acknowledge that a follow-up assessment after a longer period of time may have revealed greater variation in quantity and quality of social support available and degree of loneliness experienced.

On the basis of the results of the Jones and Moore (1987) study, two main conclusions may be drawn:

1. although social support and loneliness are related, they are not synonymous concepts;

2. there is little evidence to suggest that a lack in quantity and quality of social support available causes loneliness exclusively, or even predominantly. It seems that social support and loneliness are two related but independent concepts, both of which may derive from common origins (Weeks, Michela, Peplau and Bragg, 1980).

It seems likely that, given the apparent stability of differences in quantity and quality of social support available and degree of loneliness experienced over time, personality factors play a role in determining individual differences in social support and loneliness.

Halamandaris (1995)

Halamandaris (1995) attempted to elucidate relationships between demographic and personality characteristics, social support, general well-being and adjustment, in the context of university adjustment in first-year students. Halamandaris' (1995) main aim was to examine the relationships between the general well-being and university adjustment of home and foreign first-year students and their demographic and personality characteristics and social support. In order to achieve this aim, five cross-sectional studies and one longitudinal study were conducted. The subjects were home and foreign first-year students at the University of Stirling and the data were collected by means of self-report questionnaires and interviews.

The main results of the Halamandaris (1995) studies can be summarised as follows:

1. personality characteristics and social support were significantly related to general physical and psychological well-being and psychosocial adjustment to university. More specifically, first-year students who were more extroverted and had a higher quantity and quality of social support available demonstrated increased general physical and psychological well-being and psychosocial adjustment to university, whereas those who

were more neurotic and had a lower quantity and quality of social support available demonstrated decreased general physical and psychological well-being and psychosocial adjustment to university;

2. although, for foreign first-year students, factors such as cultural dissimilarity, homesickness and practical difficulties (e.g., inability to visit home because of time and/or financial difficulties) were significantly related to general physical and psychological well-being and psychosocial adjustment to university, personality characteristics remained significantly related to psychosocial adjustment to university;

3. although some changes in absolute levels of extroversion and neuroticism and quantity and quality of social support available during the academic year were found, the extent to which these factors remained stable was significant.

The main results of the Halamandaris (1995) studies are supportive of the general belief that personality characteristics and social support are significantly related to each other and to general well-being and adjustment during a major transition in one's life. This is not to say that other, situationally-determined, factors do not affect general well-being and adjustment, just that personality characteristics and social support do seem to contribute, to a large extent, to general well-being and adjustment during a major life change.

During the past 20 or so years, many researchers have examined the roles played by dispositional and situational factors in determining behaviour and adjustment. The results of their studies have suggested the importance of examining both the individual and joint roles played by dispositional and situational factors where behaviour and adjustment are concerned.

1.1.4 The Role Played by Personality in First-Year Students' Adjustment to University

The 'vulnerability model' conceptualises the stress associated with life transition and change as the result of a multifactorial process, with dispositional and situational factors influencing the stressor's pathogenic effects (Cohen and Wills, 1985; Dohrenwend and Dohrenwend, 1974; Rabkin and Struening, 1976). The majority of the empirical research into stress buffering has focused on the possible moderating role played by situational factors, such as social support (e.g., Cohen and Wills, 1985; Kessler and McLeod, 1985) and coping strategies (e.g., Folkman, Lazarus, Gruen and DeLongis, 1986; Kessler, Price and Wortman, 1985). In general, there is little convincing evidence of dispositional factors acting as stress buffers (e.g., Neufeld, 1989). Most empirical research into personality has focused on direct effects on mental health or coping rather than on stress buffering effects. Moreover, much of the empirical research is difficult to interpret, because of: conceptual or statistical problems; a lack of consistency of results across studies and inadequate numbers of independent replications.

Extroversion, characterised by an easy-going predisposition and heightened sociability, has consistently emerged as an enduring personality factor (Kline, 1987; McCrae and Costa, 1987). Although it has not often entered the area of stress research, there is some evidence suggesting that the extroversion-introversion dimension may moderate the response to a potential stressor and influence vulnerability. Extroversion, measured by the extroversion scale of the Eysenck Personality Questionnaire (Eysenck and Eysenck, 1975), is negatively correlated with psychological symptoms (Lu and Argyle, 1991). The easy-going element of extroversion has been found to be negatively correlated with both psychosomatic and depressive symptoms (Holahan and Moos, 1985). Cooper and Payne

(1967) found that extroverts demonstrated increased job adjustment. Furthermore, in a different line of empirical research, evidence suggests a reliable connection between extroversion and happiness measures, which, in turn, is negatively correlated with symptomatology (Argyle and Lu, 1990a, b; Costa and McCrae, 1980; Lu and Argyle, 1991).

Like extroversion-introversion, neuroticism is another consistently found factor in the structure of personality (Kline, 1987). Although there has been relatively little empirical research into the real-life behaviour of stable extroverts/introverts or neurotic extroverts/introverts, according to Eysenck (1967), neurotic extroverts are susceptible to hysteria, whereas neurotic introverts are susceptible to anxiety, phobias, obsessive-compulsive disorder and depression. Empirical research has found that neurotic extroversion is related to somatic symptoms, whereas neurotic introversion is related to psychological symptoms (Sutherland and Cooper, 1990). Lu and Argyle (1991) found a direct effect of neuroticism on mental health in a longitudinal multiple regression analysis.

In the present study, the life change of concern is the transition from school to university. Few studies have examined the possible role played by personality factors in moderating the response to the stress associated with this, and in influencing vulnerability, despite the fact that empirical research seems to suggest relationships between extroversion and adjustment and neuroticism and adjustment (Watson and Clark, 1984; Watson, Pennebaker and Folger, 1986; Watson, Clark and Carey, 1988).

Initially, studies examining the possible role played by personality factors in determining students' adjustment to university focused on the effect of having an authoritarian personality style (e.g., Adorno, Frenkel-Brunswick, Levinson and Sanford, 1950; Basu and Ames, 1970; Chang, 1973), while latterly, researchers have attempted to identify

possible vulnerability factors predictive of poor student adjustment to university (e.g., Davidson, Parnell and Spencer, 1955; Fisher et al, 1985, 1987; Lu, 1990, 1994; Riggio et al, 1993). Empirical research seems to consistently suggest a significant relationship between personality factors, social support and general well-being (e.g., Costa and McCrae, 1980, 1985) and the possibility that extroversion and neuroticism may underlie relationships that have been found between social support, general well-being and happiness (Costa and McCrae, 1985) and overall satisfaction with current life and adjustment, as well as a number of gender differences (Borys and Perlman, 1985).

In one of the most well-designed studies of the psychosocial university adjustment of home first-year students, Cutrona (1982) identified loneliness as a vulnerability factor predictive of poor psychosocial university adjustment among home first-year students. Two of the conclusions of Cutrona's (1982) study were that: 1) one of the best predictors of loneliness was attributing loneliness to personality factors and 2) one of the best predictors of recovery from loneliness was satisfaction with one's personality factors. Cutrona (1982) argued that, rather than attempt to change their personality factors, lonely university students should attempt to change situational factors, such as large, competitive classes and impersonal halls of residence, that may contribute to loneliness. Empirical research seems to support the existence of an enduring personality factor, negative affectivity (Watson and Clark, 1984), which may be relevant to the results of Cutrona's (1982) study. Individuals high in negative affectivity - which is conceptualised as having neuroticism at its core, as opposed to positive affectivity - which is conceptualised as having extroversion at its core, tend to be anxious and/or depressed, even in the absence of any stressor, and to have a negative view of themselves, others and the world in general. Negative affectivity is conceptualised as centring on subjective

experience, rather than objective experience, and the overall low mood and self-esteem of individuals high in negative affectivity seem to be related, to some extent, to their tendency to dwell on and magnify disappointments, frustrations, mistakes and threats. Individuals better able to put unpleasant experiences behind them (i.e., individuals low in negative affectivity), tend to feel better about themselves, others and the world in general (Watson and Clark, 1984).

Shaver et al (1986), in their one-year study of first-year students' adjustment to university, identified poor social skills as predictive of poor student university adjustment, as did Riggio et al (1993). Similarly, cross-sectional studies and a longitudinal study of the psychosocial adjustment of both home and foreign first-year students at the University of Stirling, conducted by Halamandaris (1995), identified perceived social competence or social inhibition as predictive of social support, loneliness and psychosocial adjustment. It seems plausible to hypothesise that personality factors, such as extroversion and neuroticism, will be predictive of perceived social skills and, therefore, of psychosocial adjustment during students' first year at university.

As is the case with extroversion and neuroticism, achievement motivation - another personality factor which intuitively seems relevant to student adjustment to university - has not been adequately studied in this regard. A few studies exist of the construction of measures of achievement motivation and of gender differences in achievement motivation (Modick, 1977; Pilai, 1983), and one study examined the relationship between achievement motivation and other personality factors in Japanese students (Doi, 1985), but few studies have examined the relationship between achievement motivation and adjustment to university.

Achievement motivation - which is conceptualised as the desire to perform well in order to attain an inner feeling of personal accomplishment - was, however, examined in relation to students' psychosocial adjustment to university by Halamandaris (1995). Halamandaris (1995) found that the 'hopes for success' aspect of achievement motivation correlated positively with extroversion and negatively with neuroticism, whereas the 'fear of failure' aspect of achievement motivation correlated negatively with extroversion and positively with neuroticism. 'Hopes for success' correlated positively with social support, happiness and psychosocial adjustment and negatively with loneliness. 'Fear of failure' correlated negatively with social support, happiness and psychosocial adjustment and positively with loneliness.

1.2 The Quality of Perceived Parental Relationships and its Link with Psychological Adjustment

The aim of this section is to review the empirical research into childhood parental relationships and adjustment in adolescence and adulthood and, more importantly, parental characteristics as determinants of maladjustment in a child.

1.2.1 Childhood Parental Relationships and Adjustment in Adolescence and Adulthood

The assertion that childhood parental relationships can affect adjustment in adolescence and adulthood underlies many schools of psychological thought, including psychoanalytic and attachment theories. While some of the more 'classical' theories have focused on the role played by disruption of the parental bond, e.g., through separation, divorce or death (Bowlby, 1975, 1977), more recent studies have suggested that it is not the disruption per se that can lead to maladjustment, but rather that maladjustment is often the result of

poor parenting (Parker, Barrett and Hickie, 1992; Tennant, 1988). Therefore, more recent studies have examined the 'adequacy' of parental bonds.

Parent-Child Bonds

The concept of a 'bond' between a parent and a child is generally accepted despite, as Bowlby (1969) and Rutter (1972) have indicated, the lack of a satisfactory definition of the concept. Theoretically, it could be proposed that parent-child bonds would be broadly influenced by characteristics of the parent or care-giving system (e.g., psychological and cultural influences), characteristics of the child (e.g., individual differences in attachment behaviour) and characteristics of the reciprocal, dynamic and evolving relationship between the parent and the child. While that reciprocal interrelationship has historically resisted definition, it is probably fair to suggest that most empirical research has examined the influence of single factors rather than attempt to identify the principle dimensions of bonding.

1.2.2 Parental Characteristics as Determinants of Maladjustment in a Child

Researchers have argued for the existence of two important parental characteristics as determinants of maladjustment in a child: 1) care and 2) control/overprotection (Perris, Jacobsson, Lindstrom, von Knorring and Perris, 1980; Roe and Siegelman, 1963). Bowlby (1977) argued that these characteristics were at the core of the parental role, in that parents should be available and responsive to a child (care) and know when to intervene in a child's life without resorting to the extremes of overprotection or neglect (control). These parental characteristics have been confirmed through factor analytic studies (Arrindell, Perris, Perris, Eisemann, van der Ende and von Knorring, 1986; Parker, Tupling and Brown, 1979).

In reviewing the empirical research into parental characteristics associated with normal child development, Rutter (1972) isolated characteristics said to be necessary for adequate mothering; a loving relationship leading to an unbroken attachment to one specific individual in the family who provides adequate stimulation. In discussing mother-child interaction, Bowlby (1969) emphasised the retrieval behaviour of the mother, which is concerned with reducing the distance between mother and child, so serving a protective function. Bowlby (1969) noted that retrieval behaviour has been considered under many headings, including 'mothering', 'maternal care' and 'nurturance.' During the child's development, maternal retrieval behaviour diminishes until maintenance of proximity is left almost entirely to the growing youth. Ainsworth, Bell and Stayton (1975) postulated that mothers, despite a 'massive overlay' of learned behaviours, are biased to respond to children in species-characteristic ways which, in accordance with Bowlby's (1969) view, serve a significant protective function. In their paper, Ainsworth et al (1975) drew attention to four dimensions of maternal behaviour which were reflected in the balance of attachment and exploratory behaviour in children. The dimensions were labelled: accessibility-ignoring; acceptance-rejection; sensitivity-insensitivity and co-operation-interference. Parental characteristics have been neglected or only briefly considered by these researchers.

One way of defining the parental contribution to bonding is to measure parental attitudes and behaviours and to determine source factors by factor analytic or other methods. Roe and Siegelman (1963) factor analysed the responses of several independent samples of children and adults to items dealing with their parents' behaviour in their childhood. The first factor was bipolar and considered to be 'clearly one of affection and warmth, as

contrasted with coldness and rejection.' The second factor was entitled 'causal-demanding', with items at the latter end suggesting strict regulation and intrusiveness, together with demands for high obedience and accomplishment. A third factor, which accounted for little of the variance, was unipolar and suggested a protective concern for the child that was not necessarily affectionate. In their review of nine other studies (based on observations of parents and their children, interviews of mothers or children's reports of present or past behaviours), Roe and Siegelman (1963) noted that eight of the studies reported a factor 'which is clearly one of affection and warmth, as contrasted with coldness and rejection.' A similar factor to Roe and Siegelman's (1963) second factor was reported in many of the nine studies, but a factor similar to their third factor was isolated in only a few of the nine studies.

Schaefer (1965) factor analysed responses of independent samples of children and adults in a similar study. The first factor was bipolar and labelled 'acceptance versus rejection', with one pole defined by expression of affection, positive evaluation, emotional support, equalitarian treatment and sharing, and the other by rejection, ignoring and neglect. The second factor, also bipolar, was labelled 'psychological autonomy versus psychological control', with the latter pole, defined by items of intrusiveness, parental control and direction through guilt, suggesting covert, psychological methods of controlling the child, which do not permit him or her to develop as an individual. The third factor was labelled 'firm control versus lax control', and seemed to be a dimension reflecting the degree to which parents make rules and set limits. A more recent study of 254 normal adults (Raskin, Boothe, Reatig, Schulterbrandt and Odle, 1971), found three factors which resembled Schaefer's (1965) three conceptual dimensions. The largest percentage of common or shared variance was accounted for by the first two factors, while the third factor seemed to have less 'heuristic significance.'

Findings from the studies reviewed here suggest that the parental contribution to bonding may be influenced by two source factors. The first factor clearly seems to be a care dimension. The second factor does not seem to be so readily definable, but suggests a dimension of psychological control over the child.

In the past two decades, there has been renewed interest in the relationship between parental characteristics and child maladjustment. The renewed interest in this relationship is due to the fact that theories can now be tested experimentally by means of parental bonding measures.

The *Egna Minnen Beträffande Uppfostran* (EMBU) (Perris et al, 1980) is an 81-item questionnaire, of which only 64 items score on a four-point Likert-type scale. It was developed as a multidimensional measure of parental bonding that consisted of 14 scales (Perris et al, 1980). The psychometric investigation by the group formed around Arrindell yielded four factor-analytically derived subscales: 1) Rejection (e.g., 'I think my parents were mean and grudging towards me'); 2) Emotional Warmth (e.g., 'My parents showed with words and gestures that they liked me'); 3) Overprotection (e.g., 'I think my parents interfered with everything I did') and 4) Favouring Subject (e.g., 'I was spoilt by my parents in comparison to my brother(s) and/or sister(s)') (Arrindell, Emmelkamp, Brilman and Monsma, 1983). As part of a cross-cultural study of parental bonding and child psychopathology (Richter, Eisemann and Perris, 1990), the EMBU was adapted to the needs of over 25 countries. The first three subscales remained invariant in the populations studied, but the Favouring Subject subscale was not sustainable in its adaptation to other cultures and countries. The measure has been used in the examination of parental bonding

in different types of psychiatric patients, those with a history of: depression (Perris, 1983); drug addiction (Anasagasti and Denia, 1988); alcoholism (Vrasti and Eisemann, 1994); phobias (Arrindell et al, 1983) and attempted suicide (Benjaminsen, Krarup and Lauritsen, 1990; Ross, 1994).

Based on Bowlby's (1969) attachment theory, the Adult Attachment Interview (AAI) (Main and Goldwyn, in press) is a one hour-long, semi-structured interview that asks participants to describe their childhood attachment experiences and the impact of those experiences on their development and personality (George, Kaplan and Main, 1996). Responses are transcribed verbatim and coding of the transcripts enables participants to be classified as having one of four particular 'states of mind' with regard to attachment, corresponding to distinct styles of discourse. These styles of discourse were found by studying parents of children with known attachment classifications and are thought to relate to participants' childhood attachment experiences (Main, Kaplan and Cassidy, 1985). Autonomous discourse is highly coherent and thought to reflect either optimal attachment experiences or the participant's psychological resolution of suboptimal attachment experiences. Unresolved discourse demonstrates specific lapses in the monitoring of reasoning when the participant is discussing traumatic events, such as the loss of an attachment figure or abuse by an attachment figure, and is considered least optimal. Dismissing and preoccupied discourse are considered intermediate and are thought to reflect rejecting and inconsistent attachment experiences, respectively. A small percentage of participants do not fit any of these categories and are labelled 'cannot classify.' Coding the AAI requires a two week, specialised training course, followed by extensive reliability testing. Most coders require about half a day per transcript to code the AAI. Because AAI classification is based on styles of discourse, the childhood

attachment experiences described by the participant are not necessarily indicative of classification. To determine participant classification, several nine-point scales are used to code AAI transcripts (Main and Goldwyn, in press). The five AAI Experience scales represent the participant's probable childhood attachment experiences as judged by the coder, who uses both participant report and an estimate of participant believability to assign a rating. The AAI State of Mind scales represent aspects of the participant's discourse that may be affected by attachment-related feelings. Final classification on the measure is derived from the State of Mind scales, the most important of which is the Coherency scale.

1.2.3 The Parental Bonding Instrument (PBI)

Development of the Parental Bonding Instrument (PBI) (Parker et al, 1979) has facilitated much empirical research into perceived parental characteristics as risk factors in the development of maladjustment (Parker et al, 1992).

The PBI is a factor-analytically derived experiential measure that weighs the respondent's experiences and memories of their parents during the first 16 years of life. Thus, the PBI measures 'perceived' rather than 'actual' parenting. This makes intuitive sense, as individuals are more likely to be influenced by the way in which they subjectively regard their parents, rather than any objective 'reality' of how their parents actually behaved towards them during the first 16 years of life. Indeed, Rutter (1972) maintained that it is an individual's 'perceptions' of their parents that plays a significant role in the aetiology of different psychosocial problems.

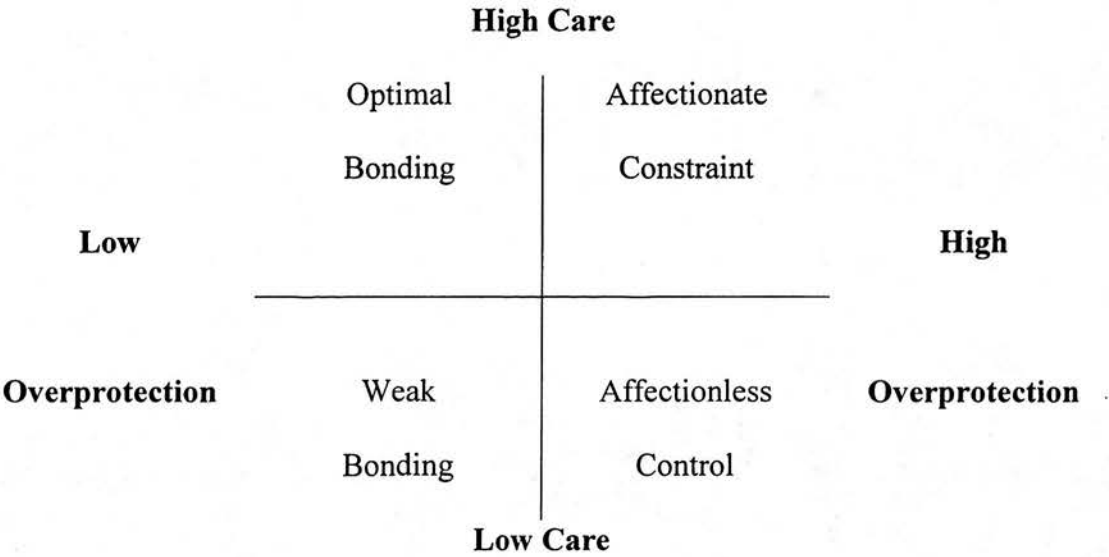
Studies using samples from both the general population and treatment groups have demonstrated that the PBI is psychometrically stable and not influenced by personality

factors or current mood states (Mackinnon, Henderson, Scott and Duncan-Jones, 1989; Parker, 1983). Furthermore, studies using groups of siblings or twins have suggested that the PBI scales may indeed reflect actual parental behaviour, rather than just the perceptions of the respondent (McCrae and Costa, 1988; Mackinnon, Henderson and Andrews, 1991; Parker, 1983, 1986).

The PBI provides an estimate of parental care and overprotection for the respondent throughout childhood as far as adolescence. The care scale assesses two poles: one characterised by affection, emotional warmth, empathy and closeness, and the other by indifference, emotional coldness and neglect. Likewise, the protection scale assesses two poles: one characterised by control, overprotection, intrusion and excessive infantilisation and the discouragement of independent behaviour, and the other by items that suggest the encouragement of autonomy and independence. However, a well-designed, large-scale study by Cubis, Lewin and Dawes (1989), using a factor analytic method, derived three factors from the PBI. Parker et al's (1979) original 'overprotection' factor was divided into two new factors: 1) 'personal control' (dealing with the extent to which the parents dominate and infantilise the child) and 2) 'perceived social control' (dealing with the amount of restriction in day-to-day activities).

Four main styles of parental bonding may also be examined using this measure (Parker et al, 1979; Parker, Fairley, Greenwood, Jurd and Silove, 1982). These are 'optimal bonding' (high care-low overprotection), 'weak bonding' (low care-low overprotection), 'affectionate constraint' (high care-high overprotection) and 'affectionless control' (low care-high overprotection) (Figure 1.1).

Figure 1.1 The Two Scales of the Parental Bonding Instrument (PBI), Demonstrating the Conceptualised Parental Bonding Possibilities (after Parker et al, 1979).



The convergent validities of the EMBU and the PBI and the AAI and the PBI have been examined. Livianos-Aldana and Rojo-Moreno (1999) found moderate associations between total scores on the EMBU and the PBI and strong associations between subscale scores on the two measures. Manassis, Owens, Adam, West and Sheldon-Keller (1999) found that the PBI provides a satisfactory approximation of AAI attachment ratings for samples consisting of many participants, when few participants are likely to regard their childhood attachment experiences with on-going idealisation or anger and few participants are likely to have experienced childhood abuse. Manassis et al (1999) conclude that the PBI provides a useful screen for attachment-related difficulties in large, non-clinical populations.

1.2.4 Empirical Research using the PBI

The PBI has been used in a host of studies to examine the quality of perceived parental relationships in such populations as agoraphobics and social phobics (Parker, 1979), the depressed (Parker, 1979), alcoholics (Bernardi, Jones and Tennant, 1989), drug addicts (Schweitzer and Lawton, 1989) and suicidal individuals (Adam, Keller, West, Larose and Goszer, 1994; Goldney, 1985; Martin and Waite, 1994), as well as in the population at large (Cubis et al, 1989). There is much agreement in the empirical research that the strongest reported predictors of maladjustment are low care and high overprotection by one or both parents, with the combination of low care *and* high overprotection (i.e., affectionless control) being particularly detrimental.

The aim of the present study is to examine the quality of perceived parental relationships in quite a different population; that of first-year university students.

Few studies have used the PBI with adolescent samples, let alone with adolescent samples in academic settings. There are both advantages and disadvantages in assessing the quality of perceived parental relationships in adolescence. On the one hand, adolescents' perceptions of their parents are more likely to be influenced by transient events, compared to the perceptions expected of adults. Their perceptions may also be more negative, in line with critical appraisals of parents commonly experienced as developmental issues during this stage of life. Obtaining truthful and accurate perceptions may also be a problem with adolescents. On the other hand, adolescents may reflect more sanguine perceptions, relative to the mellowing of perceptions experienced by adults in response to their own child-rearing experiences. Adolescents' perceptions may also have greater validity in predicting psychological adjustment or associations with other psychosocial factors.

A relatively diverse set of studies has found correlations between psychosocial morbidity and parental behaviours, as assessed through adolescents' perceptions. Among the most frequently examined aspects of psychosocial morbidity has been adolescent alcohol and drug abuse (Barnes, 1984; Jurich, Polson, Jurich and Bates, 1985; Rees and Wilborn, 1983; Vicary and Lerner, 1986). Jurich et al (1985) reported that parents of drug users and those of drug abusers differed in their styles of discipline, with parents of drug abusers being more authoritarian. Barnes (1984) also noted the importance of inadequate nurturing in adolescent alcohol use and other deviance, while Rees and Wilborn (1983) found that indirect parental control (e.g., persistent anxiety, hostile control and guilt) was more likely to be used by those with drug abusing children. In the latter study, perceiving your father as rejecting and your mother as a lax disciplinarian was a salient predictor of drug-abusing behaviours.

Deviant behaviour has also been a focus of interest in several studies (Adams, Gullotta and Clancy, 1985; Cubis, Lewin and Raphael, 1985; Loeb, Burke and Boglarsky, 1986; Plapp, 1983; Smithson, 1985). Loeb et al (1986) report that runaway adolescents give basic difficulties with parents, such as differences in values, needs for independence and issues of control, as the main reasons for their behaviour. In another American study, 74% of runaway adolescents reported leaving home because they were not getting on with their parents (Adams et al, 1985). A significant percentage also expressed very negative perceptions of their parents. Cubis et al (1985) reported that early adolescent sexual activity is related to perceptions of maternal care. A follow-up study found relationships between adolescents' perceptions of their parents and unemployment (Smithson, 1985). Associations have also been found between depression, delinquency and low parental care (Howard, 1981). In a PBI study, young women who attempted suicide were more likely than a control group to report low care and high overprotection from both parents (Goldney, 1985).

Other studies have found few associations between psychosocial morbidity and parental behaviours. For example, Plapp (1983) found no relationships between scores on the PBI and the number of management problems displayed by adolescents in residential psychiatric care.

Several studies have reported a positive correlation between adolescents' well-being and their perceptions of parental support (Burke and Weir, 1978; Greenberg, Siegel and Leitch, 1983). Overall, parental relationships seem to contribute more significantly to adolescents' well-being than do peer relationships (Greenberg et al, 1983). For example, high self-esteem has been associated with having parents who are more accepting, not

overly firm and less psychologically controlling; this effect was reported to be stronger for mothers than fathers (Litovsky and Dusek, 1985). However, having a positive perception of one's parents may simply be reflective of an adolescent's self-esteem, rather than contributing to it (Bohrnstedt and Fisher, 1986).

In 1983, Cubis et al began a longitudinal study of the factors associated with adolescent psychosocial morbidity (Cubis et al, 1989). The plan for the study was to assess hypothesised vulnerability factors by screening a large sample of adolescents, to identify subgroups at different levels of vulnerability and then to conduct regular follow-up surveys and interviews during late adolescence and early adulthood. Adolescents' perceptions of their parents were assessed during the screening stage using the PBI. The four specific aims of the researchers were: 1) to assess the factors underlying adolescents' perceptions of their parents; 2) to assess gender differences in adolescents' perceptions of their parents; 3) to examine interactions between the PBI factors and their relationships with selected psychosocial factors and 4) to provide normative PBI data for a community sample of Australian adolescents.

The PBI was completed by 2,147 adolescents (1,078 males and 1,069 females). 29% of the sample were aged 14 years or younger, 49% turned 15 years of age on their last birthday and 22% of the sample were aged 16 years or older, so that the average age was 15.4 years. 81% of the adolescents lived with their natural fathers, while 93% lived with their natural mothers. Overall, 76% of the adolescents came from 'intact families' (i.e., lived with both natural parents).

The adolescents tended to rate their parents as low in care and high in overprotection. Overall, fathers were rated as lower in care, while mothers were rated as higher in overprotection. These differences could well reflect differing parental styles and behaviours, or differences in the periods of time adolescents typically spend with their fathers and mothers. Similar gender-of-parent effects were reported in the original PBI studies (Parker, 1983; Parker et al, 1979).

Males generally rated their fathers as lower in overprotection, while females generally rated their parents as higher in care. The presence of these gender effects is open to much interpretation. They are probably multifactorial in nature, relating to biological, temperamental, personality and social influences. They may reflect the reported developmental lags in males' levels of social maturity (Eisenberg, Shell, Pasternack, Beller, Lennon and Mathy, 1987; Steinberg and Silverberg, 1986). Adolescents are also more likely than adults to be influenced by social stereotypes, so that these gender effects may largely reflect peer-related perceptions. The researchers found significant gender differences on most of the psychosocial factors used during the screening stage of the study, with females having less positive psychosocial profiles. Females were more neurotic and impulsive and had more negative body images, higher GHQ scores and more professional consultations because they were worried, sad or depressed. Similar findings have been reported elsewhere (Almqvist, 1986; Baron and Perron, 1986). There were no significant interactions involving the adolescents' gender and, therefore, there was no reason to believe that any relationships found between adolescents' perceptions and their other psychosocial factors were gender dependent.

Adolescents who perceived their fathers as higher in care tended to have 'positive' psychosocial profiles, in that they were less neurotic and impulsive and more extroverted,

and had more positive body images and lower GHQ scores. Adolescents who perceived their fathers as higher in overprotection tended to be more impulsive. Adolescents who perceived their mothers as higher in overprotection tended to be more neurotic and introverted and had more negative body images. Adolescents who perceived their mothers as lower in care *and* lower in overprotection tended to have more professional consultations because they were worried, sad or depressed. Adolescents who perceived their fathers as lower in care and their mothers as higher in overprotection tended to have the least positive psychosocial profiles.

Neuroticism has been found to be a fairly strong predictor of psychological problems in epidemiological research (Henderson, Byrne and Duncan-Jones, 1986; Katz and McGuffin, 1987). Its associations with low paternal care and high maternal overprotection in this study, probably reflect the intrapsychic element of neuroticism. They may also reflect the distorted and highly sensitive perceptions that anxious-phobic adolescents have of their parents. The associations found in this study generally support the parental styles reported by Parker as being predictive of particular psychiatric syndromes (Parker, 1983; Parker et al, 1982).

Canetti, Bachar, Galili-Weisstub, De-Nour and Shalev (1997) examined the relationship between parental bonding and mental health in Israeli adolescents. The PBI, the Perceived Social Support Scale (Procidano and Heller, 1983), the Brief Symptom Inventory (Derogatis and Spencer, 1982), the General Well-Being Schedule (Dupuy, 1975) and the Marlow-Crowne Social Desirability Scale (Crowne and Marlowe, 1960) were completed by 847 high school students. Overall, Israeli adolescents reported more parental care and less parental overprotection than Cubis et al's (1989) Australian adolescents. Females reported more maternal care than males. High school students who reported high parental

care and low parental overprotection (i.e., optimal bonding) reported more perceived social support, less distress and more general well-being. In contrast, high school students who reported low parental care and high parental overprotection (i.e., affectionless control) reported less perceived social support, more distress and less general well-being.

As part of a study of the psychological adjustment of Japanese adolescents enrolled in a foreign exchange programme, Furukawa and Shibayama (1994) administered the PBI to a cohort of 188 high school students, who had been selected to spend one year in various countries of the world, before their departure from Japan. The People in Your Life Scale (PIYL) (Kitamura, 1987; Marziali, 1987), the Maudsley Personality Inventory (Eysenck, 1959; MPI Research Group, 1969) and the GHQ were also administered. Six months after arrival in the host community, the PIYL and the GHQ were administered again. The Japanese adolescents demonstrated significant and substantial deterioration on the three measures of psychological adjustment: they reported less availability of and satisfaction with social relationships and more psychiatric symptoms in the host community than at home. Availability of social relationships abroad was best predicted by availability and adequacy of social relationships at home, satisfaction with social relationships abroad was best predicted by satisfaction with social relationships at home and paternal care before age 16 and psychiatric symptoms were best predicted by adequacy of social relationships and neuroticism measured before departure from Japan.

1.3 The Potential Importance of Examining the Link between the Quality of Perceived Parental Relationships and Psychological and University Adjustment in First-Year Students

In the previous sections, the empirical research into psychological and university adjustment in first-year students, and into the quality of perceived parental relationships and its link with psychological adjustment, has been reviewed. On the basis of the empirical research reviewed thus far, two main conclusions may be drawn:

1. although a large number of factors have been examined in relation to first-year students' psychological and university adjustment over the years, many important questions remain unanswered. In particular, the psychological and university adjustment of home students has not been examined adequately; it seems to have been assumed that home students do not experience significant adjustment problems compared to foreign students;
2. development of the Parental Bonding Instrument (PBI) (Parker et al, 1979) has facilitated much empirical research into the link between the quality of perceived parental relationships and psychological adjustment in adolescence and adulthood. No study to date, however, has examined the link between the quality of perceived parental relationships and psychological and university adjustment in first-year students.

Important Questions remain Unanswered

The present study attempted to answer the following three questions:

1. What factors contribute to home first-year students' psychological and university adjustment in the 21st century? Do home first-year students experience significant psychological and university adjustment problems?
2. Is there a link between the quality of perceived parental relationships and psychological and university adjustment in first-year students?
3. Is there a link between personality style and psychological and university adjustment in first-year students?

Why are these Questions Important?

As the previous sections of this introduction have made clear, many researchers, during the past 30 or so years, have attempted to identify factors that contribute to the successful and unsuccessful psychological and university adjustment of first-year students, particularly foreign first-year students. 'Adjustment' has been defined in many different terms - frequently in terms of academic performance - and many findings, some inconclusive and/or even contradictory, have been reported and discussed. The aim of each of the studies was not, of course, always the same: in some the aim was to identify sources of satisfaction and students with high levels of academic performance; in others the aim was to identify sources of dissatisfaction and students with low levels of academic performance and in others the aim was to find solutions to problems, to make a number of suggestions for increasing university adjustment and decreasing drop-out rates.

In the present study, on the basis of the empirical research reviewed in the previous sections, the focus is on the psychological and university adjustment of home first-year students in relation to the quality of perceived parental relationships and personality style. The results of studies of this type may have implications for university students' counselling services.

Transition and change are common in individuals' lives. They are often considered to be particularly stressful for the individual who has to undergo a number of major and minor life changes. As many researchers (e.g., Shaver et al, 1986) have argued, a common finding in life transition studies is that, despite the generally disruptive effect of life change, some individuals cope better than others. Indeed, Shaver et al (1986) argue that:

'While some are taxed to the point of illness or despair, others cope vigorously and quickly rebuild supportive social networks and satisfying life structures' (p. 194).

The same has been argued by Costa and McCrae (1985). What is of importance is to identify the factors that contribute to successful and unsuccessful adjustment after a life transition.

The life change of concern in the present study is the transition from school to university. For many students, this is the first major transition in their lives. The university student has to adjust to a number of significant changes, both academic and social. He or she has to adjust to the changes involved in the late adolescent stage of development and personal growth. He or she has to adjust to changes in his or her current relationships and build new ones. Given the great potential for change at this developmental stage; the possibility that university staff could identify students who are unsuccessfully adjusting to any changes and the relatively easy ability to access students' counselling services while at university, the implications for increasing psychological and university adjustment and decreasing student drop-out rates become clear.

As mentioned previously, 'adjustment' has been defined in many different terms. In the areas of health and social psychology, adjustment has been defined consistently, in terms of physical and psychological well-being and freedom from loneliness and depression, and psychosomatic symptoms checklists (such as the GHQ) and loneliness and depression checklists (such as the UCLA Loneliness Scale-Revised (R-UCLA) (Russell et al, 1980) and the Beck Depression Inventory (BDI) (Beck, 1967)) have been used (e.g., Caldwell,

Pearson and Chin, 1987; Folkman et al, 1986; Hays and Oxley, 1986; Holahan and Moos, 1982).

In the present study, on the basis of the empirical research reviewed in the previous sections, adjustment was defined in terms of general well-being (including somatic, cognitive and behavioural well-being and freedom from depression); freedom from loneliness and overall student satisfaction with academic and social lives at university. On the basis of this definition, the following three dependent variables were measured:

1. general well-being, using the General Health Questionnaire (GHQ) (Goldberg and Hillier, 1979);
2. loneliness, using the UCLA Loneliness Scale-Revised (R-UCLA) (Russell et al, 1980);
3. overall student satisfaction with academic and social lives at university, using the College Adaption Questionnaire (CAQ) (Crombag, 1968).

1.4 Aims and Hypotheses

The present study aimed to examine the link between the quality of perceived parental relationships and psychological and university adjustment in first-year students. Firstly, the study aimed to examine the quality of perceived parental relationships of a sample of first-year students and compare the results to data from a large Australian normative study (Cubis et al, 1989). Secondly, the study aimed to examine the links between parental and personality style and levels of psychological and university adjustment.

It was hypothesised that:

1. as in the normative study, subjects in the present study who perceive low levels of parental care and high levels of parental overprotection (i.e., affectionless control) would have less positive psychological profiles than subjects who perceive low levels of parental

care and low levels of parental overprotection (i.e., weak bonding), high levels of parental care and high levels of parental overprotection (i.e., affectionate constraint) and high levels of parental care and low levels of parental overprotection (i.e., optimal bonding);

2. parental optimal bonding would be linked with increased levels of student psychological and university adjustment, while parental affectionless control would be linked with decreased levels of student psychological and university adjustment;

3. extroversion and high levels of achievement motivation would be linked with increased levels of student psychological and university adjustment, while neuroticism and low levels of achievement motivation would be linked with decreased levels of student psychological and university adjustment;

4. parental optimal bonding would be linked with increased levels of university student extroversion and achievement motivation, while parental affectionless control would be linked with increased levels of university student neuroticism and decreased levels of achievement motivation;

5. high levels of student university adjustment would be linked with high levels of psychological adjustment, while low levels of student university adjustment would be linked with low levels of psychological adjustment.

2. METHOD

2.1 Design

The present study examined the link between the quality of perceived parental relationships and psychological and university adjustment in first-year students. The study was cross-sectional in design, examining the links between a number of independent variables (the quality of perceived parental relationships and personality) and a number of dependent variables (psychological and university adjustment). In cross-sectional studies, with the simplest of the correlational research designs, all the variables are measured at one point in time. By designing a study cross-sectionally, data can be collected and the links between the independent and dependent variables examined within a relatively short period of time.

The study was approved by the University of Abertay Dundee Research Ethics Committee.

2.2 Subjects

2.2.1 Selection Criteria

There were no specific criteria for subject selection, in order to ensure that the sample was as representative of the first-year university student population as possible. All subjects were between 17 and 50 years of age. In all cases, informed consent to participate in the study was obtained from the subject him- or herself. Participation in the study was completely voluntary, subjects did not receive any course credit or payment for their participation, and all responses were guaranteed anonymous and confidential.

2.2.2 Sample

The subjects in the sample were 121 first-year students, 19 males and 102 females, randomly selected from the School of Social and Health Sciences of the University of Abertay Dundee. The sample consisted of 58.7% of the total first-year student population of the School of Social and Health Sciences of the University of Abertay Dundee, and the gender ratio of the sample, of approximately one male to five females, was consistent with that of the school. The mean age of the subjects was 20.92 years (s.d. = 6.12 years), with a range of 17 to 50 years. The majority of the subjects were British (118, 97.5%), with 3 subjects (2.5%) comprising the non-British minority. 67 subjects (55.4%) were single, 48 subjects (39.7%) were in a long-term relationship, engaged or married and 6 subjects (5.0%) were separated, divorced or widowed. 13 subjects (10.7%) were living alone, 60 subjects (49.6%) were living with friends or a partner and 48 subjects (39.7%) were living with their parents.

2.3 Materials

The use of reliable and valid measures is one of the most important features of a well-designed study. Given the theoretical perspective of the present study, with its focus on personal perceptions, cognitive and emotional processes, the measures used were subjective, self-report measures.

The use of subjective, self-report measures is not without its problems. One of the most common problems is that of response bias, whereby systematic research errors arise as a result of characteristics of the measure or respondent or procedural errors. In the present study, a lie-sensitive scale (Eysenck and Eysenck, 1985) was included to reduce the problem of socially desirable responding. In addition, measures with counterbalanced

positively- and negatively-worded items were used to reduce the problem of acquiescence.

All the measures used in the study were standardised, reliable, valid and widely used. The measures administered fell into four basic categories: 1) measures used to examine the quality of perceived parental relationships; 2) measures used to examine personality; 3) measures used to examine psychological adjustment and 4) measures used to examine university adjustment.

2.3.1 Measures used to examine the Quality of Perceived Parental Relationships

The Parental Bonding Instrument (PBI) (Pedersen, 1994):

Subjects completed the shortened form of the PBI, for ease and speed of completion and scoring, which contains 10 of the original 25 items developed by Parker et al (1979). Subjects completed four-point Likert-type scales according to whether they strongly agreed, agreed, disagreed or strongly disagreed with statements about their parents as perceived during the first 16 years of their lives. The PBI was completed separately for mothers and fathers, or, for subjects with a substitute parental figure, for the individual who they regarded in that role (e.g., grandparent, aunt, uncle, step-parent). In the shortened form of the PBI, the range of possible scores is 0-15 for the care scale and 0-15 for the protection scale.

The shortened form of the PBI, like the long form, demonstrates psychometric characteristics and discriminates between groups in a meaningful way. Pedersen (1994) examined the reliability of the shortened form of the PBI, calculating Cronbach's alpha coefficients, and produced coefficients ranging from 0.69 to 0.78 for the four subscales of maternal care, maternal protection, paternal care and paternal protection. Pedersen (1994) also found a factor structure and scores reminiscent of those reported by other

researchers (e.g., Parker, 1983), suggesting the validity of the measure. Parker et al (1979) produced a Pearson correlation coefficient of 0.70 when they examined the reliability of the long form of the PBI and coefficients of 0.78, for the care scale, and 0.49, for the protection scale, when they examined the concurrent validity of the two scales (by correlating the care and overprotection scores obtained at interview with those determined by the scales) (Appendices 1a and 1b).

2.3.2 Measures used to examine Personality

The Eysenck Personality Questionnaire-Revised (EPQ-R) (Eysenck and Eysenck, 1991):

The EPQ-R is a self-report questionnaire and one of the most widely used measures of extroversion, neuroticism and psychoticism. It was standardised on a sample of 902 subjects (408 males and 494 females) by Eysenck, Eysenck and Barrett in 1985, who produced reliability (Cronbach's alpha) coefficients of 0.88, 0.87 and 0.77 for the three subscales, of extroversion, neuroticism and psychoticism, on the long form and reliability coefficients of 0.86, 0.82 and 0.62 for the three subscales on the shortened form. The validity of the EPQ-R is suggested by Corulla (1987), who conducted a psychometric investigation of the measure and its relationship to the I7 Impulsiveness Questionnaire (Eysenck, Pearson, Easting and Allsopp, 1985) on a sample of 307 subjects (92 males and 215 females). The questionnaire includes a Lie Scale (Eysenck and Eysenck, 1985), which attempts to measure the tendency of some respondents to 'fake good' and is assumed to measure some stable personality factor which possibly reflects social naivety or conformity. The shortened form of the EPQ-R consists of 48 items, all in statement format. Respondents indicate 'yes' or 'no' whether each statement applies and possible scores range from 0 to 48.

The Argyle and Robinson nAch Scale (nAch) (Argyle and Robinson, 1962):

The nAch measures two aspects of achievement motivation: 1) 'hopes for success' (nAch +ive) and 2) 'fear of failure' (nAch -ive), and was adapted for use with university students by Halamandaris (1995). In the adapted form, each subscale consists of five positively- and negatively-worded statements about motives to perform, achieve and excel in everyday situations. These statements are rated on a scale from one to five and possible scores range from 10 to 50. High nAch scores reflect high 'hopes for success' and 'fear of failure' (Chay, 1990). Halamandaris (1995) produced a Pearson correlation coefficient of 0.94 when she examined the reliability of the measure. The measure has been demonstrated to be valid in the sense that scores can be increased by experimental arousal of the drive (Argyle and Robinson, 1962) (Appendices 2 and 3).

2.3.3 Measures used to examine Psychological Adjustment

The General Health Questionnaire (GHQ) (Goldberg and Hillier, 1979):

The 28-item GHQ is the shortened form of the original 60-item GHQ developed, by Goldberg (1972), as a measure of psychiatric caseness. The 28-item GHQ consists of four scales, with seven items each, each measuring a different aspect of general health: 1) somatic dysfunction; 2) anxiety and insomnia; 3) social dysfunction and 4) depression. Respondents have to match their feelings over the past couple of weeks with one of four alternatives for each item. There are two non-pathological and two pathological alternatives for each item. The most common method of scoring the GHQ, when it is being used for psychiatric case identification, is the 'GHQ Method' of giving no score for a non-pathological response and a score of one for a pathological response. The range of possible scores is 0-28. The 28-item GHQ has been demonstrated to be reliable and valid with young individuals in a non-clinical setting (Banks, 1983). Banks (1983) produced a

Pearson correlation coefficient of 0.78, when he examined the reliability of the 28-item GHQ, and coefficients of 0.67 and 0.74, when he examined its validity (by correlating 28-item GHQ scores with Present State Examination (PSE) (Wing, Cooper and Sartorius, 1974) Index of Definition and total scores) (Appendix 4).

2.3.4 Measures used to examine University Adjustment

The College Adaption Questionnaire (CAQ) (Crombag, 1968):

The CAQ, developed by Crombag (1968) to measure how well students have adjusted to university life, is a self-report questionnaire consisting of 18 statements. Eight statements measure good and ten statements measure poor student adjustment to university life. Respondents indicate on a seven-point rating scale how well each statement applies. The total CAQ score is the sum of the ratings given to all statements (the ratings given to the statements measuring poor student adjustment to university life are reversed), the range of possible scores is 18-126, and the higher the total CAQ score, the higher the level of student adjustment to university life. Halamandaris (1995) examined the reliability of the measure, calculating a Cronbach's alpha coefficient, and produced a coefficient of 0.91. In a study testing the validity of the measure, conducted at the Free University in Eindhoven with a sample of (educational) psychology students, total scores were found to be moderately to strongly associated with state- and trait-depression scores. Total CAQ scores were not associated with socially desirable responding and no overall gender, age or marital status differences were found (Van Rooijen, 1986).

The UCLA Loneliness Scale-Revised (R-UCLA) (Russell, Peplau and Cutrona, 1980):

The R-UCLA is the most widely used measure of loneliness. It has high reliability (Cronbach's alpha coefficient = 0.94) and, a number of studies indicate, good concurrent

and discriminant validity (Russell et al, 1980). Concurrent validity for the measure was indicated by Russell et al (1980), who demonstrated that lonely individuals report experiencing emotions theoretically linked to loneliness and do not report experiencing emotions unrelated to loneliness. Discriminant validity for the R-UCLA was also indicated by Russell et al (1980), who demonstrated that scores on the measure were not associated with socially desirable responding. The R-UCLA consists of 20 items. Ten items are positively- and ten items are negatively-worded, and all items are counterbalanced to prevent socially desirable responding. Respondents indicate how often they feel the way described by each of the items on a rating scale ranging from 'never' to 'often.' The total R-UCLA score is calculated by summing the ratings of all items, after reversing the positively-worded items' ratings, the range of possible scores is 20-80, and the higher the total R-UCLA score, the higher the degree of loneliness experienced (Appendices 5 and 6).

2.4 Procedure

The present study was conducted during the second semester of the student subjects' first-year at university. The timing of the study was similar to that of the studies by Cutrona (1982) and Shaver et al (1986) and was considered appropriate, ensuring that the students had had adequate time to experience the initial stage of transition to university and to develop new relationships.

A short, structured questionnaire, including the measures of the quality of perceived parental relationships, personality, psychological and university adjustment, was completed by the students to enable the collection of a comprehensive amount of quantitative data. Subjects completed the questionnaire during the last approximately 20 minutes of a lecture, after a short presentation which informed them of the aims and

hypotheses of the study and assured them of the anonymity and confidentiality of their responses.

In part one of the questionnaire, demographic characteristics were recorded for each subject, including: gender; age (in years); nationality; marital status; residential status and current academic status (grade at which currently functioning). A list of 16 academic and social difficulties likely to be experienced during the university year (based on a similar list developed by Klineberg and Hull, 1979), three general questions regarding subjective satisfaction and happiness with current life and future adjustment to university life and an open-ended question asking students for suggestions as to what they believe could improve their lives while at university, were also included. In part two of the questionnaire, the measures of the quality of perceived parental relationships, personality, psychological and university adjustment were completed. The questionnaires were collected at the end of the lecture (Appendix 7).

2.5 Data Analysis

2.5.1 Subject Confidentiality

To ensure response anonymity and confidentiality, each completed questionnaire was assigned an identification number which was entered into a computer.

2.5.2 Data Analysis

The data were entered onto a spreadsheet and analysed using the Statistical Package for the Social Sciences (SPSS), for Windows, version 9. Following Hojat (1982), questionnaires with more than 10% of data missing were excluded from analysis (11 of the total of 132 questionnaires collected at the end of the lecture had more than 10% of data missing and were, therefore, excluded from analysis). When less than 10% of data

were missing from questionnaires, means were calculated from the available data and used to estimate the missing values prior to analysis. This is the most conservative method of estimating missing values, as the means for the distribution as a whole do not change. Univariate and multivariate outliers were identified, examined individually and, when necessary, excluded from the data analysis. The data were examined for normality, homoscedasticity and linearity.

Pearson correlation coefficients were calculated to examine the links between the students' scores on the four PBI subscales (maternal care, maternal protection, paternal care, paternal protection) and the psychological and university adjustment measures and between the students' scores on the EPQ-R and nAch and the psychological and university adjustment measures. In order to examine these links further, stepwise regression analysis was carried out to examine the relation between the PBI scores of students and self-reported psychological and university adjustment and between the EPQ-R and nAch scores of students and self-reported psychological and university adjustment. One-way analysis of variance was carried out to examine any differences between the effects of different parental styles on the psychological and university adjustment of students.

3. RESULTS

3.1 Demographic and Academic Characteristics

The means, standard deviations and results of independent samples t-tests for differences between the male and female first-year university students' scores on the measures used in the study are presented in table 3.1. No significant differences were found between the male and female students' scores on the measures used to examine the quality of perceived parental relationships, psychological and university adjustment. Significant differences were found, however, between the male and female university students' scores on the measures used to examine personality, with the males scoring higher on the EPQ-R psychoticism subscale ($t = 2.75$, $df = 119$, $p < .05$) and the females scoring higher on the EPQ-R neuroticism ($t = 2.44$, $df = 119$, $p < .05$) and nAch hopes for success ($t = 2.17$, $df = 119$, $p < .05$) subscales.

Given that significant differences between the male and female university students' scores were found on only two of the measures used in the study, and given the small number of male subjects in the study, all subsequent analyses involved the data for the sample as a whole.

As regards the academic and social difficulties likely to be experienced during the university year, financial difficulties were the most likely to be experienced ($n = 85$, 70.2%), followed by academic difficulties in the form of coursework overload ($n = 52$, 43.0%), self-perceived lack of previous training for university life ($n = 41$, 33.9%), coursework difficulties ($n = 40$, 33.1%) and self-perceived lack of framework and direction in studies ($n = 39$, 32.2%). Social difficulties in the form of having to manage family responsibilities and studies at the same time ($n = 33$, 27.3%), homesickness and/or

Table 3.1 Comparison of Means (and Standard Deviations) of Male (n = 19) and Female (n = 102) First-Year University Students on the Measures used in the Study.

<i>Measure</i>	<i>Mean</i>	<i>(SD)</i>	<i>t</i>	<i>(df)</i>	<i>p</i>
PBI_{mc}					
males	10.26	3.36			
females	11.54	3.42	1.50	119	ns
PBI_{mp}					
males	4.42	2.71			
females	4.63	2.68	0.31	119	ns
PBI_{pc}					
males	8.32	3.84			
females	9.19	4.20	0.84	119	ns
PBI_{pp}					
males	3.68	2.16			
females	4.92	2.64	1.92	119	ns
EPQ-R_p					
males	4.74	3.05			
females	2.75	1.87	2.75	119	<.05
EPQ-R_e					
males	8.32	3.54			
females	8.74	3.29	0.50	119	ns
EPQ-R_n					
males	5.21	3.87			
females	7.32	3.39	2.44	119	<.05
EPQ-R_l					
males	3.47	2.17			
females	3.44	2.58	0.05	119	ns
nAch_{hs}					
males	15.74	3.53			
females	17.42	3.02	2.17	119	<.05
nAch_{ff}					
males	16.21	3.21			
females	15.45	2.63	1.17	119	ns
GHQ_{somd}					
males	2.32	2.21			
females	2.23	2.35	0.16	119	ns
GHQ_{ai}					
males	1.16	2.14			
females	1.91	2.30	1.32	119	ns
GHQ_{socd}					
males	1.79	2.25			
females	1.20	1.88	1.23	119	ns
GHQ_d					
males	1.21	2.35			
females	0.75	1.63	0.81	119	ns
CAQ					
males	85.42	22.77			
females	86.46	19.62	0.21	119	ns
R-UCLA					
males	19.89	11.61			
females	16.90	10.21	1.15	119	ns

PBI_{mc} = PBI maternal care, PBI_{mp} = PBI maternal protection, PBI_{pc} = PBI paternal care, PBI_{pp} = PBI paternal protection.

EPQ-R_p = EPQ-R psychoticism, EPQ-R_e = EPQ-R extroversion, EPQ-R_n = EPQ-R neuroticism, EPQ-R_l = EPQ-R lie.

nAch_{hs} = nAch hopes for success, nAch_{ff} = nAch fear of failure.

GHQ_{somd} = GHQ somatic dysfunction, GHQ_{ai} = GHQ anxiety and insomnia, GHQ_{socd} = GHQ social dysfunction, GHQ_d = GHQ depression.

depression (n = 28, 23.1%), accommodation/roommate difficulties (n = 24, 19.8%), loneliness (n = 20, 16.5%), lack of meaningful contact with people (n = 14, 11.6%) and lack of support and/or co-operation from fellow university students (n = 11, 9.1%) were next most likely to be experienced. A significant number of university students experienced practical difficulties (e.g., transport difficulties) (n = 28, 23.1%), while only small numbers experienced difficulties due to a lack of counselling services (n = 5, 4.1%), racial/national discrimination and/or prejudice (n = 2, 1.7%), religion (n = 2, 1.7%) or for other reasons (n = 5, 4.1%).

Accordingly, when students were asked for suggestions as to what they believe could improve their lives while at university, the majority of answers to this question involved addressing financial difficulties (e.g., by dis-establishing university tuition fees and re-establishing student grants) (45.4%), with answers involving addressing academic difficulties (e.g., by improving timetables and communication between lecturers and students) (18.2%), social difficulties (e.g., by having fewer family responsibilities and more friends) (18.2%) and practical difficulties (e.g., by improving university accommodation and transport provisions) (18.2%) all coming next. As this question was open-ended, the data collected were qualitative in nature and, therefore, coded rather than statistically analysed (Appendix 8).

93 students (76.9%) reported being satisfied with their current life, 92 (76.0%) reported being happy with their current life and 88 (72.7%) reported being optimistic about their future adjustment to university life. Only 10 university students (8.3%) reported their current academic status (grade at which currently functioning), the mean grade, on a descending scale of one to ten, being 5.40 (sd = 1.08).

3.2 The PBI and Normative Data

Table 3.2 illustrates the means and standard deviations on the four subscales of the PBI (maternal care, maternal protection, paternal care, paternal protection) for the first-year university students in the present study and the Australian adolescents in the Cubis et al (1989) study. As the means and standard deviations for the university students derive from completion of the 10-item PBI, the means and standard deviations for the Australian adolescents, derived from completion of the 25-item PBI, have been scaled down according to the number of items on each of the PBI subscales. Two-sample t-tests were used to compare the scores of the subjects in the present study to the scaled down scores of the subjects in the Cubis et al (1989) study.

As can be seen from table 3.2, the university students reported higher maternal care and lower maternal and paternal overprotection than the Australian adolescents.

In the present study, maternal care and overprotection were negatively correlated ($r = -0.35$, $p < .01$), as were paternal care and overprotection ($r = -0.22$, $p < .05$). There were significant correlations between maternal and paternal care ($r = 0.51$, $p < .01$) and maternal and paternal overprotection ($r = 0.38$, $p < .01$), suggesting there was some consistency of parental styles in these particular domains. Maternal overprotection was also significantly correlated with paternal care ($r = -0.20$, $p < .05$), although maternal care and paternal overprotection were not significantly correlated. Overall, in the present study, mothers were not perceived as significantly more caring than fathers, nor were fathers perceived as significantly more overprotective than mothers.

3.3 The PBI and the Demographic and Academic Characteristics

A significant correlation was found between age and maternal care ($r = -0.24$, $p < .01$), but not between age and paternal care, maternal or paternal overprotection. Independent

Table 3.2 Means (and Standard Deviations) on the Shortened Form of the PBI for the First-Year University Students in the Present Study (n = 121) Compared to Scaled Values for the Australian Adolescents in the Cubis et al (1989) Study (n = 2032).

	<i>This Study</i>		<i>Cubis et al</i>				
	<i>Mean</i>	<i>(SD)</i>	<i>Mean</i>	<i>(SD)</i>	<i>t</i>	<i>(df)</i>	<i>p</i>
<i>PBI</i>							
<i>Scale</i>							
mc	11.34	3.43	10.32	2.44	3.27	120	<.01
mp	4.60	2.67	5.60	2.40	4.14	120	<.001
pc	9.05	4.14	9.39	2.87	0.90	120	ns
pp	4.73	2.60	5.34	2.53	2.59	120	<.05

mc = maternal care, mp = maternal protection, pc = paternal care, pp = paternal protection.

samples t-tests revealed differences in PBI paternal care scores according to whether or not the students lived with their parents ($t = 2.08$, $df = 119$, $p < .05$), were satisfied ($t = 2.20$, $df = 98$, $p < .05$) and happy ($t = 3.15$, $df = 100$, $p < .01$) with their current lives and were optimistic about their future adjustment to university life ($t = 2.05$, $df = 91$, $p < .05$). Students who did not live with their parents, who were satisfied and happy with their current lives and who were optimistic about their future adjustment to university life had higher PBI paternal care scores. Independent samples t-tests revealed no differences in PBI subscale scores according to whether or not the students reported eight or more academic and social difficulties experienced during the university year.

3.4 The PBI and the Psychological and University Adjustment Measures

Pearson correlation coefficients were calculated to examine the links between the students' scores on the four PBI subscales and the psychological and university adjustment measures (Table 3.3). As table 3.3 illustrates, maternal and paternal care were significantly and negatively correlated with scores on the R-UCLA ($r = -0.19$, $p < .05$ and $r = -0.23$, $p < .05$, respectively), suggesting that, in this particular sample of university students, higher parental care was linked with lower levels of experienced loneliness. Similarly, in this particular sample of university students, paternal care was significantly and negatively correlated with scores on the GHQ depression subscale ($r = -0.24$, $p < .01$), suggesting that higher paternal care was linked with lower levels of experienced depression. Of the parental overprotection factors, only maternal overprotection was significantly (and positively) correlated with scores on any of the psychological and university adjustment measures, the CAQ, ($r = 0.19$, $p < .05$), suggesting that higher maternal overprotection was linked with higher levels of college adaption.

Table 3.3. Pearson Correlations between the Measures used in the Study.

Measure	PBlme	PBlmp	PBlpc	PBlpp	EPQ-Rp	EPQ-Re	EPQ-Rn	EPQ-Rl	nAchhs	nAchf	GHQ somb	GHQai	GHQ sod	GHQd	CAQ	R-UCLA
PBlme	1.00															
PBlmp	-0.35**	1.00														
PBlpc	0.51**	-0.20*	1.00													
PBlpp	-0.02	0.38**	-0.22*	1.00												
EPQ-Rp	-0.22*	0.08	-0.18	-0.01	1.00											
EPQ-Re	0.31**	-0.33**	0.23*	-0.02	-0.16	1.00										
EPQ-Rn	0.08	0.03	-0.03	-0.08	-0.11	-0.34**	1.00									
EPQ-Rl	0.08	0.09	0.21*	-0.01	-0.22*	0.03	-0.10	1.00								
nAchhs	0.06	0.04	0.11	0.03	-0.44**	0.25**	-0.21*	0.18	1.00							
nAchf	0.10	-0.03	0.07	0.01	-0.16	0.17	-0.36**	0.08	0.36**	1.00						
GHQ																
somb	0.13	-0.08	-0.14	0.10	0.12	-0.07	0.29**	-0.16	-0.12	-0.25**	1.00					
GHQai	0.12	-0.06	-0.06	0.10	0.04	-0.17	0.52**	-0.25**	-0.20*	-0.32**	0.63**	1.00				
GHQ																
sod	0.12	-0.08	-0.08	0.09	0.12	-0.19*	0.43**	-0.23*	-0.20*	-0.16	0.53**	0.70**	1.00			
GHQd	-0.03	-0.04	-0.24**	0.02	0.29**	-0.21*	0.42**	-0.26**	-0.25**	-0.22*	0.44**	0.62**	0.66**	1.00		
CAQ	-0.04	0.19*	0.08	0.01	-0.16	0.32**	-0.54**	0.13	0.32**	0.22*	-0.31**	-0.41**	-0.48**	-0.50**	1.00	
R-UCLA	-0.19*	0.12	-0.23*	-0.03	0.21*	-0.51**	0.46**	-0.05	-0.24**	-0.10	0.20*	0.29**	0.35**	0.49**	-0.62**	1.00

PBlme = PBI maternal care, PBlmp = PBI maternal protection, PBlpc = PBI paternal care, PBlpp = PBI paternal protection.
 EPQ-Rp = EPQ-R psychoticism, EPQ-Re = EPQ-R extroversion, EPQ-Rn = EPQ-R neuroticism, EPQ-Rl = EPQ-R lie.
 nAchhs = nAch hopes for success, nAchf = nAch fear of failure.
 GHQsomb = GHQ somatic dysfunction, GHQai = GHQ anxiety and insomnia, GHQsod = GHQ social dysfunction, GHQd = GHQ depression.
 * correlation is significant at the 0.05 level (2-tailed), ** correlation is significant at the 0.01 level (2-tailed)

In order to examine these links further, stepwise regression analysis was carried out to examine the relation between the PBI scores of students and self-reported psychological and university adjustment. Only the PBI factors that were found to significantly correlate with scores on the psychological and university adjustment measures were included in the analysis, due to the fact that stepwise regression can produce a result that is non-generalisable if too many factors are examined in relation to the size of the sample (Tabachnick and Fidell, 1996). Table 3.4 illustrates the results. For psychological adjustment, paternal care was the only factor entered and it accounted for 1% of the total variance. Paternal care was also the only factor entered for the measure of loneliness, accounting for 5% of the total variance. For college adaption, maternal overprotection was the only factor entered and it accounted for 3% of the total variance.

3.5 The EPQ-R and nAch and the Psychological and University Adjustment Measures

Pearson correlation coefficients were calculated to examine the links between the students' scores on the EPQ-R and nAch and the psychological and university adjustment measures (Table 3.3). As table 3.3 illustrates, scores on all the EPQ-R and nAch subscales were significantly correlated with scores on the GHQ depression subscale: psychoticism and neuroticism positively, ($r = 0.29$, $p < .01$ and $r = 0.42$, $p < .01$, respectively), and extroversion, social desirability, hopes for success and fear of failure negatively, ($r = -0.21$, $p < .05$, $r = -0.26$, $p < .01$, $r = -0.25$, $p < .01$ and $r = -0.22$, $p < .05$, respectively). Scores on the EPQ-R neuroticism and nAch fear of failure subscales were positively ($r = 0.29$, $p < .01$) and negatively ($r = -0.25$, $p < .01$) correlated with scores on the GHQ somatic dysfunction subscale respectively, while scores on the EPQ-R neuroticism subscale were positively ($r = 0.43$, $p < .01$) and scores on the EPQ-R

Table 3.4 Stepwise Regression Analysis Predicting Psychological and University Adjustment from the PBI.

<i>Variable</i>				
<i>Entered</i>	<i>df</i>	<i>Multiple R</i>	<i>Adjusted R²</i>	<i>F Change</i>
GHQ				
pc	1, 119	0.14	0.10	2.24
CAQ				
mp	1, 119	0.19	0.26	4.26*
R-UCLA				
pc	1, 119	0.23	0.45	6.66*

mp = maternal protection, pc = paternal care.

* significant at the 0.05 level

extroversion ($r = -0.19, p < .05$) and social desirability ($r = -0.23, p < .05$) and nAch hopes for success ($r = -0.20, p < .05$) subscales were negatively correlated with scores on the GHQ social dysfunction subscale. Scores on the EPQ-R neuroticism subscale were positively ($r = 0.52, p < .01$) and scores on the EPQ-R social desirability ($r = -0.25, p < .01$) and nAch hopes for success ($r = -0.20, p < .05$) and fear of failure ($r = -0.32, p < .01$) subscales were negatively correlated with scores on the GHQ anxiety and insomnia subscale.

Scores on the EPQ-R extroversion ($r = 0.32, p < .01$) and nAch hopes for success ($r = 0.32, p < .01$) and fear of failure ($r = 0.22, p < .05$) subscales were positively and scores on the EPQ-R neuroticism subscale were negatively ($r = -0.54, p < .01$) correlated with scores on the CAQ. Scores on the EPQ-R psychoticism ($r = 0.21, p < .05$) and neuroticism ($r = 0.46, p < .01$) subscales were positively and scores on the EPQ-R extroversion ($r = -0.51, p < .01$) and nAch hopes for success ($r = -0.24, p < .01$) subscales were negatively correlated with scores on the R-UCLA.

In order to examine these links further, stepwise regression analysis was carried out to examine the relation between the EPQ-R and nAch scores of students and self-reported psychological and university adjustment. For the aforementioned reason, only the EPQ-R and nAch factors that were found to significantly correlate with scores on the psychological and university adjustment measures were included in the analysis. There were a number of significant correlations between scores on the EPQ-R and nAch subscales: extroversion was positively ($r = 0.25, p < .01$) and psychoticism ($r = -0.44, p < .01$) and neuroticism ($r = -0.21, p < .05$) were negatively correlated with hopes for success and neuroticism was negatively correlated with fear of failure ($r = -0.36, p < .01$), however, as none of the correlation coefficients was equal to or greater than 0.70, both

EPQ-R and nAch factors were included in the analysis. Table 3.5a illustrates the results. For psychological adjustment, neuroticism was the first factor entered and it accounted for 23% of the total variance. Social desirability was the second factor entered, accounting for a further 4% of the total variance, while psychoticism was the third factor entered, accounting for a final 2% of the total variance. Neuroticism was the first factor entered for the measure of college adaption, accounting for 29% of the total variance, while hopes for success was the second factor entered, accounting for a further 4% of the total variance. For loneliness, extroversion was the first factor entered and it accounted for 26% of the total variance. Neuroticism was the second factor entered, accounting for a further 8% of the total variance, while psychoticism was the third factor entered, accounting for a final 3% of the total variance.

In the EPQ-R manual (Eysenck and Eysenck, 1991), Eysenck and Eysenck recommend analysing the data generated by administration of the EPQ-R twice: firstly, without excluding any subjects on the basis of high social desirability scores and secondly, excluding the top 5% of social desirability-scoring subjects. This precaution is taken to reduce the problem of socially desirable responding and was taken in the present study (Tables 3.5b1 and 3.5b2). As tables 3.5b1 and 3.5b2 illustrate, the pattern of results, when the data were re-analysed excluding the top 5% of social desirability-scoring subjects (seven subjects), was almost identical to the pattern of results when the data were analysed without excluding any subjects on the basis of high social desirability scores.

3.6 Parental Styles

Table 3.5a Stepwise Regression Analysis Predicting Psychological and University Adjustment from the EPQ-R and nAch.

<i>Variable</i>				
<i>Entered</i>	<i>df</i>	<i>Multiple R</i>	<i>Adjusted R²</i>	<i>F Change</i>
GHQ				
n	1, 119	0.49	0.23	36.88***
l	2, 118	0.53	0.27	23.05***
p	3, 117	0.56	0.29	17.36***
CAQ				
n	1, 119	0.54	0.29	48.98***
hs	2, 118	0.58	0.33	30.13***
R-UCLA				
e	1, 119	0.51	0.26	42.00***
n	2, 118	0.59	0.34	32.17***
p	3, 117	0.62	0.37	24.76***

p = psychoticism, e = extroversion, n = neuroticism, l = lie.

hs = hopes for success.

*** significant at the 0.001 level

Table 3.5b1 Pearson Correlations between the EPQ-R and nAch Scales and the Measures of Psychological (GHQ) and University Adjustment (CAQ, R-UCLA), Excluding the Top 5% of Lie-Scoring Subjects (n = 114).

<i>Measure</i>	p	e	n	l	hs	ff
GHQsomd	0.13	-0.08	0.28**	-0.11	-0.15	-0.27**
GHQai	0.05	-0.18	0.53**	-0.21*	-0.22*	-0.33**
GHQsod	0.12	-0.20*	0.43**	-0.22*	-0.21*	-0.16
GHQd	0.29**	-0.21*	0.43**	-0.25**	-0.26**	-0.21*
CAQ	-0.15	0.30**	-0.59**	0.14	0.31**	0.21*
R-UCLA	0.21*	-0.52**	0.47**	-0.11	-0.22*	-0.11

p = psychoticism, e = extroversion, n = neuroticism, l = lie.

hs = hopes for success, ff = fear of failure.

GHQsomd = GHQ somatic dysfunction, GHQai = GHQ anxiety and insomnia, GHQsod = GHQ social dysfunction, GHQd = GHQ depression.

* correlation is significant at the 0.05 level (2-tailed), ** correlation is significant at the 0.01 level (2-tailed)

Table 3.5b2 Stepwise Regression Analysis Predicting Psychological and University Adjustment from the EPQ-R and nAch, Excluding the Top 5% of Lie-Scoring Subjects (n = 114).

<i>Variable</i>				
<i>Entered</i>	<i>df</i>	<i>Multiple R</i>	<i>Adjusted R²</i>	<i>F Change</i>
GHQ				
n	1, 112	0.49	0.23	35.03***
p	2, 111	0.53	0.27	21.96***
CAQ				
n	1, 112	0.59	0.34	59.31***
hs	2, 111	0.62	0.37	33.90***
R-UCLA				
e	1, 112	0.52	0.26	41.05***
n	2, 111	0.60	0.35	31.03***
p	3, 110	0.63	0.38	23.97***

p = psychoticism, e = extroversion, n = neuroticism.

hs = hopes for success.

*** significant at the 0.001 level

Parker (1979, 1983) suggested using the care and protection scales of the PBI to define the four quadrants of parental style by intersecting both scales at their means using normative data. Although Parker (1979) provided norms, recently researchers have opted to use the normative data provided by Cubis et al (1989). As there were significant differences between the scores on the four subscales of the PBI for the first-year university students in the present study and the scaled down scores for the Australian adolescents in the Cubis et al (1989) study, it was felt that to use the Cubis et al (1989) norms on this occasion would be inappropriate. Instead, as they were similar to those found in the first study to use the shortened form of the PBI (Pedersen, 1994), it was decided to use the present study's means on the care and protection scales of the PBI to define the four quadrants of parental style. The parental styles for each subject were defined as follows: maternal care 1-11 low and 12-15 high; maternal overprotection 1-4 low and 5-15 high; paternal care 1-9 low and 10-15 high and paternal overprotection 1-4 low and 5-15 high. Figure 3.1 illustrates the number of parents assigned to each of the four PBI parental style quadrants by the subjects in the present study.

3.6.1 Parental Style and Psychological and University Adjustment

One-way analysis of variance was carried out to examine any differences between the effects of different parental styles on the psychological and university adjustment of students. Post-hoc Scheffé tests were used to identify where any differences lay (Tables 3.6a and 3.6b). Maternal style had no effect on psychological or university adjustment, but students who were optimally bonded with their mothers were significantly more extroverted than those who were affectionlessly controlled ($F(3, 117) = 3.97, p < .05$, means = 9.64 and 7.04 respectively). Paternal style had an effect on university adjustment, with students who were weakly bonded with their fathers experiencing

Figure 3.1 Assignment of Parents to PBI Parental Style Quadrants by First-Year University Students.

		High Care		
		Optimal	Affectionate	
		Bonding	Constraint	
Low		Mothers = 39	Mothers = 32	High
		(32.2%)	(26.4%)	
		Fathers = 32	Fathers = 38	
		(26.4%)	(31.4%)	
		<hr/>		
		Mothers = 23	Mothers = 27	
		(19.0%)	(22.3%)	
		Fathers = 19	Fathers = 32	
		(15.7%)	(26.4%)	
Overprotection		Weak	Affectionless	Overprotection
		Bonding	Control	
		Low Care		

Table 3.6a One-way Analysis of Variance Tests for Differences between First-Year University Students by Maternal Style.

						<i>post-hoc</i>
						<i>Scheffé</i>
	<i>G1</i>	<i>G2</i>	<i>G3</i>	<i>G4</i>	<i>F (3, 117)</i>	<i>p<.05</i>
<i>Measure</i>						
EPQ-Rp	2.64	4.00	2.47	3.56	3.26	ns
EPQ-Re	9.64	9.35	8.38	7.04	3.97*	1-4
EPQ-Rn	7.18	5.96	7.59	6.89	1.01	ns
EPQ-Rl	2.90	3.74	4.47	2.78	3.32	ns
nAchhs	17.21	16.04	17.81	17.26	1.45	ns
nAchff	15.87	15.17	15.66	15.37	0.37	ns
GHQ	7.44	5.17	6.09	5.56	0.63	ns
CAQ	85.08	81.57	88.06	90.00	0.86	ns
R-UCLA	15.15	18.48	17.53	19.44	1.03	ns

G1 = Group 1: optimal bonding, G2 = Group 2: weak bonding, G3 = Group 3: affectionate constraint, G4 = Group 4: affectionless control.

EPQ-Rp = EPQ-R psychoticism, EPQ-Re = EPQ-R extroversion, EPQ-Rn = EPQ-R neuroticism, EPQ-Rl = EPQ-R lie.

nAchhs = nAch hopes for success, nAchff = nAch fear of failure.

* mean difference is significant at the 0.05 level

Table 3.6b One-way Analysis of Variance Tests for Differences between First-Year University Students by Paternal Style.

						<i>post-hoc</i>
						<i>Scheffé</i>
	<i>G1</i>	<i>G2</i>	<i>G3</i>	<i>G4</i>	<i>F (3, 117)</i>	<i>p<.05</i>
<i>Measure</i>						
EPQ-Rp	2.59	3.74	2.79	3.44	1.60	ns
EPQ-Re	9.25	7.74	8.87	8.41	0.94	ns
EPQ-Rn	6.41	7.68	7.29	6.81	0.65	ns
EPQ-Rl	3.41	3.42	3.89	2.97	0.79	ns
nAchhs	17.09	17.26	17.58	16.66	0.50	ns
nAchff	15.53	15.21	15.76	15.59	0.17	ns
GHQ	4.75	8.26	5.71	7.13	1.24	ns
CAQ	85.41	78.11	90.61	86.94	1.70	ns
R-UCLA	14.81	24.58	14.61	18.94	5.29**	1-2, 2-3

G1 = Group 1: optimal bonding, G2 = Group 2: weak bonding, G3 = Group 3: affectionate constraint, G4 = Group 4: affectionless control.

EPQ-Rp = EPQ-R psychoticism, EPQ-Re = EPQ-R extroversion, EPQ-Rn = EPQ-R neuroticism, EPQ-Rl = EPQ-R lie.

nAchhs = nAch hopes for success, nAchff = nAch fear of failure.

** mean difference is significant at the 0.01 level

significantly higher levels of loneliness than those who were optimally bonded or affectionately constrained ($F(3, 117) = 5.29, p < .01$, means = 24.58, 14.81 and 14.61 respectively).

3.7 Differences between First-Year Students with Different Levels of University Adjustment

Three groups of students with low, intermediate and high levels of university adjustment were defined by grouping the bottom 27%, middle 46% and top 27% of CAQ scores, following Saklofske and Yackulic (1989). One-way analysis of variance was carried out to examine any differences between first-year students with different levels of university adjustment. Post-hoc Scheffé tests were used to identify where any differences lay (Table 3.7). Students with low levels of university adjustment had significantly higher psychoticism ($F(2, 118) = 3.49, p < .05$, means = 3.91 and 2.67) and neuroticism ($F(2, 118) = 19.78, p < .001$, means = 9.50 and 6.89) scores, experienced significantly higher levels of loneliness ($F(2, 118) = 26.39, p < .001$, means = 25.66 and 16.98) and had significantly lower hopes for success ($F(2, 118) = 10.07, p < .001$, means = 15.34 and 17.37) and higher GHQ scores ($F(2, 118) = 16.79, p < .001$, means = 11.75 and 4.33) than students with intermediate levels of university adjustment. Students with low levels of university adjustment were significantly less extroverted ($F(2, 118) = 19.78, p < .001$, means = 9.50 and 4.66), experienced significantly higher levels of loneliness ($F(2, 118) = 26.39, p < .001$, means = 25.66 and 9.78) and had significantly lower hopes for success ($F(2, 118) = 10.07, p < .001$, means = 15.34 and 18.59), fears of failure ($F(2, 118) = 3.97, p < .05$, means = 14.50 and 16.31) and higher GHQ scores ($F(2, 118) = 16.79, p < .001$, means = 11.75 and 4.09) than students with high levels of university adjustment. Students with intermediate levels of university adjustment were significantly less extroverted ($F(2,$

Table 3.7 One-way Analysis of Variance Tests for Differences between First-Year Students with Different Levels of University Adjustment.

					<i>post-hoc</i>
					<i>Scheffé</i>
	<i>G1</i>	<i>G2</i>	<i>G3</i>	<i>F (2, 118)</i>	<i>p<.05</i>
<i>Measure</i>					
PBI _{mc}	11.78	11.23	11.09	0.37	ns
PBI _{mp}	3.91	4.82	4.88	1.46	ns
PBI _{pc}	8.38	9.28	9.31	0.57	ns
PBI _{pp}	4.47	4.88	4.72	0.25	ns
EPQ-R _p	3.91	2.67	2.91	3.49*	1-2
EPQ-R _e	7.63	8.21	10.53	7.99**	1-3, 2-3
EPQ-R _n	9.50	6.89	4.66	19.78***	1-2, 1-3, 2-3
EPQ-R _l	3.06	3.56	3.63	0.51	ns
nAch _{hs}	15.34	17.37	18.59	10.07***	1-2, 1-3
nAch _{ff}	14.50	15.75	16.31	3.97*	1-3
GHQ	11.75	4.33	4.09	16.79***	1-2, 1-3
R-UCLA	25.66	16.98	9.78	26.39***	1-2, 1-3, 2-3

G1 = Group 1: university adjustment \leq CAQ 76, G2 = Group 2: university adjustment CAQ 77-99, G3 = Group 3: university adjustment \geq CAQ 100.

PBI_{mc} = PBI maternal care, PBI_{mp} = PBI maternal protection, PBI_{pc} = PBI paternal care, PBI_{pp} = PBI paternal protection.

EPQ-R_p = EPQ-R psychoticism, EPQ-R_e = EPQ-R extroversion, EPQ-R_n = EPQ-R neuroticism, EPQ-R_l = EPQ-R lie.

nAch_{hs} = nAch hopes for success, nAch_{ff} = nAch fear of failure.

* mean difference is significant at the 0.05 level, ** mean difference is significant at the 0.01 level,

*** mean difference is significant at the 0.001 level

118) = 7.99, $p < .01$, means = 8.21 and 10.53) and more neurotic ($F(2, 118) = 19.78$, $p < .001$, means = 6.89 and 4.66) and experienced significantly higher levels of loneliness ($F(2, 118) = 26.39$, $p < .001$, means = 16.98 and 9.78) than students with high levels of university adjustment.

4. DISCUSSION

4.1 Summary of Results

The present study examined the quality of perceived parental relationships and its link with psychological and university adjustment in first-year students. The aim of this section is to summarise the results of the study, to consider the extent to which the aims were met and the hypotheses were confirmed, to discuss implications and methodological issues and to identify targets for future research. In particular, the results of the study may be relevant to, and have implications for, the types of approaches taken to university student counselling.

The results of the study can be summarised as follows:

1. male first-year university students were found to have higher psychoticism scores than females, while female first-year university students were found to have higher neuroticism scores and to have higher hopes for success than males;
2. financial difficulties were the difficulties found most likely to be experienced during the university student's year, followed by academic, social and practical difficulties. Accordingly, students suggested that interventions to address these difficulties could improve their lives while at university;
3. the majority of students were found to be satisfied and happy with their current lives and optimistic about their future adjustment to university life;
4. significant differences between the subjects in the present study and the subjects in a large Australian normative study (Cubis et al, 1989) were found, with the university students reporting higher maternal care and lower maternal and paternal overprotection than Australian adolescents;

5. maternal overprotection was found to be negatively correlated with paternal care and a negative correlation was also found between age and maternal care. Students who did not live with their parents, who were satisfied and happy with their current lives and who were optimistic about their future adjustment to university life were found to have higher PBI paternal care scores;
6. maternal and paternal care were found to be negatively correlated with loneliness, paternal care was also found to be negatively correlated with depression and maternal overprotection was found to be positively correlated with college adaption;
7. psychoticism and neuroticism were found to be positively, and extroversion, social desirability, hopes for success and fear of failure negatively, correlated with depression. Neuroticism and fear of failure were found to be positively and negatively correlated with somatic dysfunction, respectively. Neuroticism was found to be positively, and extroversion, social desirability and hopes for success negatively, correlated with social dysfunction. Neuroticism was found to be positively, and social desirability, hopes for success and fear of failure negatively, correlated with anxiety and insomnia. Extroversion, hopes for success and fear of failure were found to be positively, and neuroticism negatively, correlated with college adaption. Psychoticism and neuroticism were found to be positively, and extroversion and hopes for success negatively, correlated with loneliness;
8. university students who were optimally bonded with their mothers were found to be significantly more extroverted than those who were affectionlessly controlled. University students who were weakly bonded with their fathers were found to experience significantly higher levels of loneliness than those who were optimally bonded or affectionately constrained;

9. students with low levels of university adjustment were found to have higher psychoticism and neuroticism scores, to experience higher levels of loneliness and to have lower hopes for success and higher GHQ scores than students with intermediate levels of university adjustment. Students with low levels of university adjustment were found to be less extroverted, to experience higher levels of loneliness and to have lower hopes for success, fears of failure and higher GHQ scores than students with high levels of university adjustment. Students with intermediate levels of university adjustment were found to be less extroverted and more neurotic and to experience higher levels of loneliness than students with high levels of university adjustment.

4.2 Aims and Hypotheses and Results

1. The first aim of the present study was to examine the quality of perceived parental relationships of a sample of first-year students and compare the results to data from a large Australian normative study (Cubis et al, 1989). This aim was met and significant differences between the subjects in the present study and the subjects in the normative study were found, with the university students reporting higher maternal care and lower maternal and paternal overprotection than Australian adolescents. It was hypothesised that subjects who perceive low levels of parental care and high levels of parental overprotection (i.e., affectionless control) would have less positive psychological profiles than subjects who perceive low levels of parental care and low levels of parental overprotection (i.e., weak bonding), high levels of parental care and high levels of parental overprotection (i.e., affectionate constraint) and high levels of parental care and low levels of parental overprotection (i.e., optimal bonding). This hypothesis was confirmed in part and university students who were optimally bonded with their mothers were found to be significantly more extroverted than those who were affectionlessly

controlled. University students who were weakly bonded with their fathers were found to experience significantly higher levels of loneliness than those who were optimally bonded or affectionately constrained. The present study used a shortened form of the PBI and, as the normative study used the long 25-item form, the significant differences found between these studies may have been a consequence of the particular items selected for the shortened form of the PBI, particularly as these were selected for a Norwegian sample (Pedersen, 1994) and the PBI has been found to be culturally sensitive (Parker and Lipscombe, 1979). In the Canetti et al (1997) study, Israeli adolescents also reported higher parental care and lower parental overprotection than Cubis et al's (1989) Australian adolescents.

The second aim of the study was to examine the links between parental and personality style and levels of psychological and university adjustment and was also met.

2. The second hypothesis of the study was confirmed in part: maternal style had no effect on psychological or university adjustment, while paternal style had an effect on university adjustment; with students who were weakly bonded with their fathers experiencing significantly higher levels of loneliness than those who were optimally bonded or affectionately constrained. Maternal and paternal care were found to be negatively correlated with loneliness, paternal care was also found to be negatively correlated with depression and maternal overprotection was found to be positively correlated with college adaption. Previous research (e.g., Cubis et al, 1989; Martin and Waite, 1994; McFarlane, Bellissimo and Norman, 1995; Parker, 1979; Tousignant, Bastien and Hamel, 1993) has also found significant correlations between low levels of parental care and high levels of psychopathology. Pedersen (1994) found that low levels of parental care most strongly characterised the adolescents in his Norwegian sample who displayed symptoms

of anxiety/depression, as measured using the GHQ-12, when compared to a symptom-free control group. The negative correlations found between paternal care and loneliness and depression in the present study support the argument that the father's characteristics are at least as important as the mother's in the development of psychopathology in the child (Phares and Compas, 1992). Relatively recent studies have examined the link between paternal factors and symptoms of depression in non-referred adolescents. McCranie and Bass (1984) examined the link between retrospective reports of parental behaviour in childhood and current levels of self-criticism and dependency in a sample of young women. Self-criticism was linked with reports of fathers' inconsistency of love, use of strict control and achievement control. Richman and Flaherty (1987) examined the link between retrospective reports of parental behaviour in childhood and current symptoms of depression in a sample of first-year medical students. Data were collected at the beginning and end of the university year to enable prospective statistical analyses. Reports of a low level of paternal affection, and paternal overprotection, were linked with depressive symptoms at follow-up, after controlling for initial levels of depressive symptoms. The positive correlation found between maternal overprotection and college adaption in the present study would not be expected; having an overprotective parent would not provide a student with the types of self-preservation skills that are necessary for adjusting to university.

3. The third hypothesis of the study was confirmed: extroversion and high levels of achievement motivation were linked with increased levels of student psychological and university adjustment, while neuroticism and low levels of achievement motivation were linked with decreased levels of student psychological and university adjustment. The links found between student personality style and levels of psychological and university adjustment in the present study support those found by Halamandaris (1995) in her

studies, who also found that absolute levels of extroversion and neuroticism remained stable during the academic year. The implications for the long-term psychological and university adjustment of extroverted and neurotic students are clear.

4. It was hypothesised that parental optimal bonding would be linked with increased levels of university student extroversion and achievement motivation, while parental affectionless control would be linked with increased levels of university student neuroticism and decreased levels of achievement motivation. This hypothesis was confirmed in part and university students who were optimally bonded with their mothers were found to be significantly more extroverted than those who were affectionlessly controlled. It is perhaps not surprising that decreased levels of maternal overprotection were linked with increased levels of university student extroversion; extroversion is likely to be socially- or peer- driven in adolescence and, thus, would be expected to be influenced by parental restrictions on social activities with peers.

5. It was hypothesised that high levels of student university adjustment would be linked with high levels of psychological adjustment, while low levels of student university adjustment would be linked with low levels of psychological adjustment. This hypothesis was confirmed and, again, the links found in the present study support those found by Halamandaris (1995) in her studies.

4.3 Implications of Results

Many authorities believe that the mental difficulties of youth are a necessary, healthy part of acquiring maturity and that those who are unable to cope with them unaided do no more than reveal their own lack of fibre. Those who work among students, however,

have the experience that some of them are handicapped, some seriously, by psychopathology which makes it difficult, or even impossible, for them to profit from the educational, social and athletic opportunities that university provides. University students carry out their work at a particularly vulnerable time of life. They are older adolescents who meet largely age-determined difficulties in a situation of special demand and competition that coincides with the climax of adolescent changes in their physical, emotional and intellectual lives. The problems that seem to be associated with most of the psychopathology described by university students are, in the main, common problems of adolescent growth and social adjustment. However, these problems are not easy to solve just because everyone must meet them. Different individuals meet common problems in different ways. The difficulties remain simple or become complicated according to the personality and experience of the individual meeting them. There seems to be little doubt that psychopathology is more conspicuous in, and more disastrous for, university students than for many others. The occupation of university students is unique in so far as it is probably the only one in which those who follow it are repeatedly subject to formal tests of their ability to continue work. Because of the nature of his or her work and not so much because of the nature of his or her distress, the distressed university student needs help when other older adolescents can presumably get by without it. It is this particular occupational disability that makes the treatment of psychopathology among university students a matter of prime importance.

Student counselling services in British universities are a relatively recent innovation, certainly compared to those that have been a regular feature of establishments in the USA and Australia for at least 50 years. The types of difficulties that cause students to present themselves at a university counselling service are those common to older adolescents in

all walks of life. They involve such things as general difficulties of maturation, making choices for themselves and the conflicts therein, academic difficulties, psychosexual difficulties, psychopathology; all of which are heightened by the pressures of the academic environment, its emphasis on the intellect, its hidden competitiveness, its paradoxes, and its inevitable artificiality, with so many of the same age-group clustered together. In most situations, university students present with a mixed range of difficulties and here clarification is therefore one of the most necessary first stages.

The preoccupation of the anxious, the despair or lack of energy of the depressed, the perfectionism and repetition of the obsessional, the distractability of the hypomanic and the thought disorder of the schizophrenic may all constitute non-specific assaults on the university student's academic capacity. For the university student disabled in this way, work represents an unattainable goal or an irrelevant distraction and a period of absence from work is essential. The role of a student counselling service in such a case, as in the case of physical illness, is to arrange treatment, to maintain contact and to ensure adequate recovery before return to university. Once students who have needed absence for this type of illness return to university, it is important to maintain supervision and to advise lecturers as to whether full academic pressures should be applied. The university should provide a sufficiently structured environment - one in which the student feels secure enough to move about and experiment. It should provide a choice of at least two adults who, the university student can feel, understand and respect him or her. Given this, the average university student can release him- or herself from outgrown parental ties and undue dependence on the opinion of parents and feel free to pursue his or her own line of development. Difficulties not adequately resolved in early childhood - e.g., parental relationship difficulties - are said to come to the fore again in adolescence (Freud, 1958). If so, there is a unique opportunity for their better resolution then, after the most violent

upheavals of puberty have settled, for reactions have not yet acquired the fixed patterns of adulthood and the course of life may still be relatively easily changed.

4.4 Methodological Issues

The shortcomings of the present study must be noted. Firstly, the sample size was relatively small and the number of males in the sample was significantly smaller than the number of females. This latter shortcoming could be an important one as studies by Cubis et al (1989) and Pedersen (1994) suggest that there may be differences in the parental styles reported by male and female PBI respondents. The results of the present study would ideally be replicated both with a larger-sized sample and with a larger number of males in the sample. Similarly, in the study, the PBI scores of a sample of first-year university students were examined in relation to normative data from a large study of Australian adolescents (Cubis et al, 1989) and there is evidence that the PBI is sensitive to culturally-determined differences in parental style (Parker and Lipscombe, 1979). Therefore, in the present study, the influence that Scottish cultural factors had on the university students' PBI scores is unknown and in the future it would be preferable for researchers to use a same-culture comparison group, with similar background characteristics, to minimise any culturally-determined bias. Secondly, in the study, achievement motivation was examined in relation to psychological and university adjustment in a sample of first-year students and, arguably, such a sample is likely to consist of some of the highest achievers in society. One would, therefore, expect high scores on any measure of achievement motivation, suggesting that some of the results of the study should be interpreted with caution and that research with different samples is required in the future if these results are to be generalised beyond a university student sample. Thirdly, only a small number of university students in the study reported their

current academic status (grade at which currently functioning), (and it is, of course, possible that the particular subsample that did was not representative of the total sample of university students), precluding examination of the links between the quality of perceived parental relationships and personality and current academic status. This shortcoming could be another important one as, in the past, a number of researchers have argued that academic functioning is significantly correlated with psychological adjustment and personality. Selby and Woods (1966) and Hull (1978) demonstrated that at a university in the USA, where competition for places is high and academic excellence is one of the most important criteria for acceptance, students' psychological adjustment matched the highs and lows of academic functioning. Kline and Gale (1971), in a review of eight studies, found that introversion was positively correlated with academic functioning in six studies, while de Barbenza and Montoya (1974) found that neuroticism was negatively correlated with academic functioning and that extroverted university students functioned slightly better academically than introverted university students. Furnham and Mitchell (1991), in a four-year longitudinal study of trainee occupational therapists, found that introversion was positively correlated with academic functioning in first year and placement success in third year, while extroversion was positively correlated with the supervisor's assessment of the trainee's academic functioning. Having access to university records of the grades at which students are currently functioning would enable the links between the quality of perceived parental relationships and personality and current academic status to be examined in future research. Fourthly, the results of the present study were generated by analysis of data that were self-reported and, therefore, possibly influenced by response bias. However, the strong links demonstrated between the scores on the measures used in the study, and the absence of significant differences when the data generated by administration of the EPQ-R were re-

analysed excluding the top 5% of social desirability-scoring subjects, suggest that this was not the case. Fifthly, as the study was cross-sectional in design, the statistically significant correlation coefficients found cannot be interpreted as implying causation. Nevertheless, most of these were of a high order, in the expected directions and compatible with the general hypotheses that:

1. perceived parental optimal bonding is linked with increased levels of student psychological and university adjustment, while perceived parental affectionless control is linked with decreased levels of student psychological and university adjustment;
2. extroversion and a high level of achievement motivation are linked with increased levels of student psychological and university adjustment, while neuroticism and a low level of achievement motivation are linked with decreased levels of student psychological and university adjustment.

4.5 Conclusions and Implications for Future Research

In conclusion, then, the present study is the first to examine the link between the quality of perceived parental relationships and psychological and university adjustment in first-year students. The results of the study suggest a significant difference between the quality of perceived parental relationships found in a sample of university students when compared to a normative sample of Australian adolescents and that low parental care can lead to loneliness and low paternal care can lead to depression, while a high level of maternal overprotection can lead to a high level of university adjustment in students. Furthermore, the significant correlations found between scores on the measures of personality and scores on the measures of psychological and university adjustment used in the study suggest that personality may act as a mediating factor in the link between the quality of perceived parental relationships and psychological and university adjustment. It

may be that the PBI assesses general risk factors that are associated with the potential for development of psychopathology within an individual - the nature of which is determined by an interaction with other personality and social factors. This possibility has not yet been adequately addressed in studies and perhaps future research should examine the interaction of the PBI with other personality and social factors.

University students in future years may be in responsible positions and their mental health will be vital to others as well as to themselves. Their immediate need is particularly urgent because so much hangs on their being able to carry on despite difficulties and much therapy has to be aimed at the relief of current psychopathology and the resumption of adequate functioning. Insightful help may prevent psychopathology and assist growth, even if the contact is brief (Malan, 1963, 1976; Sifneos, 1972). Relatively recent articles in the 'Counselling Psychologist' (e.g., Althen, 1991; Pedersen, 1991) discuss the growing interest in university student counselling and the confusion surrounding the approaches that could be of greatest benefit. The results of the present study suggest that the following could significantly help first-year students to adjust after the transition to university: addressing the financial, academic, social and practical difficulties likely to be experienced by the student during the university year; person-centred approaches effective at relieving psychopathology associated with perceived poor quality parental relationships and maladaptive personality factors and social skills workshops for those who feel that they lack such skills or consider themselves to be socially inhibited. Research is required in the future to examine the effectiveness of different approaches to helping university students to adjust to major life transitions, both in the short- and long-terms.

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APPENDICES

- 1a The Parental Bonding Instrument (PBI) - Mother (after Pedersen, 1994)**
- 1b The Parental Bonding Instrument (PBI) - Father (after Pedersen, 1994)**
- 2 The Eysenck Personality Questionnaire-Revised (EPQ-R)**
- 3 The Argyle and Robinson nAch Scale (nAch) (after Halamandaris, 1995)**
- 4 The General Health Questionnaire (GHQ)**
- 5 The College Adaption Questionnaire (CAQ) (after Crombag, 1968)**
- 6 The UCLA Loneliness Scale-Revised (R-UCLA) (after Russell, Peplau and Cutrona, 1980)**
- 7 Study Questionnaire**
- 8 Students suggestions as to what they believe could improve their lives while at university**

APPENDIX 1a

The Parental Bonding Instrument (PBI) - Mother (after Pedersen, 1994)

For each Item, Please Underline the Alternative that Best Describes How You

Remember Your Mother in the First 16 Years of Your Life*

**Or the Individual Who You Regarded in that Role*

(e.g., Grandmother, Aunt, Step-mother)

1. She did not talk with me very much:
strongly agree/agree/disagree/strongly disagree
2. She was affectionate to me:
strongly agree/agree/disagree/strongly disagree
3. She appeared to understand my problems and worries:
strongly agree/agree/disagree/strongly disagree
4. She did not help me as much as I needed:
strongly agree/agree/disagree/strongly disagree
5. She did not understand what I needed and wanted:
strongly agree/agree/disagree/strongly disagree
6. She liked me to make my own decisions:
strongly agree/agree/disagree/strongly disagree
7. She let me decide things for myself:
strongly agree/agree/disagree/strongly disagree
8. She tried to control everything I did:
strongly agree/agree/disagree/strongly disagree
9. She tended to baby me:

strongly agree/agree/disagree/strongly disagree

10. She was overprotective:

strongly agree/agree/disagree/strongly disagree

APPENDIX 1b

The Parental Bonding Instrument (PBI) - Father (after Pedersen, 1994)

For each Item, Please Underline the Alternative that Best Describes How You

Remember Your Father in the First 16 Years of Your Life*

**Or the Individual Who You Regarded in that Role*

(e.g., Grandfather, Uncle, Step-father)

1. He did not talk with me very much:
strongly agree/agree/disagree/strongly disagree
2. He was affectionate to me:
strongly agree/agree/disagree/strongly disagree
3. He appeared to understand my problems and worries:
strongly agree/agree/disagree/strongly disagree
4. He did not help me as much as I needed:
strongly agree/agree/disagree/strongly disagree
5. He did not understand what I needed and wanted:
strongly agree/agree/disagree/strongly disagree
6. He liked me to make my own decisions:
strongly agree/agree/disagree/strongly disagree
7. He let me decide things for myself:
strongly agree/agree/disagree/strongly disagree
8. He tried to control everything I did:
strongly agree/agree/disagree/strongly disagree
9. He tended to baby me:

strongly agree/agree/disagree/strongly disagree

10. He was overprotective:

strongly agree/agree/disagree/strongly disagree

APPENDIX 2

The Eysenck Personality Questionnaire-Revised (EPQ-R)

	Age	Sex M / F	P	E	N	L
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INSTRUCTIONS: Please answer each question by putting a circle around the 'YES' or 'NO' following the question. There are no right or wrong answers, and no trick questions. Work quickly and do not think too long about the exact meaning of the questions.

PLEASE REMEMBER TO ANSWER EACH QUESTION

PAGE 1

1	Does your mood often go up and down?	YES	NO
2	Do you take much notice of what people think?	YES	NO
3	Are you a talkative person?	YES	NO
4	If you say you will do something, do you always keep your promise no matter how inconvenient it might be?	YES	NO
5	Do you ever feel 'just miserable' for no reason?	YES	NO
6	Would being in debt worry you?	YES	NO
7	Are you rather lively?	YES	NO
8	Were you ever greedy by helping yourself to more than your fair share of anything?	YES	NO
9	Are you an irritable person?	YES	NO
10	Would you take drugs which may have strange or dangerous effects?	YES	NO
11	Do you enjoy meeting new people?	YES	NO
12	Have you ever blamed someone for doing something you knew was really your fault?	YES	NO
13	Are your feelings easily hurt?	YES	NO
14	Do you prefer to go your own way rather than act by the rules?	YES	NO
15	Can you usually let yourself go and enjoy yourself at a lively party?	YES	NO
16	Are <i>all</i> your habits good and desirable ones?	YES	NO
17	Do you often feel 'fed-up'?	YES	NO
18	Do good manners and cleanliness matter much to you?	YES	NO
19	Do you usually take the initiative in making new friends?	YES	NO
20	Have you ever taken anything (even a pin or button) that belonged to someone else?	YES	NO
21	Would you call yourself a nervous person?	YES	NO
22	Do you think marriage is old-fashioned and should be done away with?	YES	NO
23	Can you easily get some life into a rather dull party?	YES	NO
24	Have you ever broken or lost something belonging to someone else?	YES	NO
25	Are you a worrier?	YES	NO

26	Do you enjoy cooperating with others?	YES	NO
27	Do you tend to keep in the background on social occasions?	YES	NO
28	Does it worry you if you know there are mistakes in your work?	YES	NO
29	Have you ever said anything bad or nasty about anyone?	YES	NO
30	Would you call yourself tense or 'highly-strung'?	YES	NO
31	Do you think people spend too much time safeguarding their future with savings and insurance?	YES	NO
32	Do you like mixing with people?	YES	NO
33	As a child were you ever cheeky to your parents?	YES	NO
34	Do you worry too long after an embarrassing experience?	YES	NO
35	Do you try not to be rude to people?	YES	NO
36	Do you like plenty of bustle and excitement around you?	YES	NO
37	Have you ever cheated at a game?	YES	NO
38	Do you suffer from 'nerves'?	YES	NO
39	Would you like other people to be afraid of you?	YES	NO
40	Have you ever taken advantage of someone?	YES	NO
41	Are you mostly quiet when you are with other people?	YES	NO
42	Do you often feel lonely?	YES	NO
43	Is it better to follow society's rules than go your own way?	YES	NO
44	Do other people think of you as being very lively?	YES	NO
45	Do you always practise what you preach?	YES	NO
46	Are you often troubled about feelings of guilt?	YES	NO
47	Do you sometimes put off until tomorrow what you ought to do today?	YES	NO
48	Can you get a party going?	YES	NO

■ PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS

APPENDIX 3

The Argyle and Robinson nAch Scale (nAch) (after Halamandaris, 1995)

Underline the Appropriate Alternative

1. In how many activities do you wish to do your very best?
most/many/some/few/very few
2. Would you hesitate to undertake something that might lead to your failing?
nearly always/frequently/about half the time/seldom/hardly ever
3. In how many areas are you personally concerned about how well you do?
most/many/some/few/very few
4. How much effort do you use to reach the goals you set yourself?
0%/25%/50%/75%/100%
5. How often do you lack confidence when you have to compete against others?
hardly ever/seldom/about half the time/frequently/nearly always
6. How true is it to say that your efforts are directed towards avoiding failure?
quite untrue/fairly untrue/unsure/fairly true/quite true
7. In how many spheres do you think you will succeed in doing as well as you can?
most/many/some/few/very few
8. How often do you seek opportunities to excel?
hardly ever/seldom/about half the time/frequently/nearly always
9. How many situations do you avoid in which you may be exposed to evaluation?
very few/few/some/many/most
10. Do you ever do better if you are worried about failing?
hardly ever/seldom/about half the time/frequently/nearly always

APPENDIX 4

The General Health Questionnaire (GHQ)

THE GENERAL HEALTH QUESTIONNAIRE

GHQ 28

David Goldberg

Please read this carefully.

We should like to know if you have had any medical complaints and how your health has been in general, *over the past few weeks*. Please answer **ALL** the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer **ALL** the questions.

Thank you very much for your co-operation.

Have you recently

A1 – been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2 – been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3 – been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4 – felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5 – been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6 – been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7 – been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual
B1 – lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2 – had difficulty in staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3 – felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4 – been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5 – been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6 – found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7 – been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual

Please turn over

C1 – been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2 – been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3 – felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4 – been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
C5 – felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
C6 – felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7 – been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual

D1 – been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
D2 – felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3 – felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4 – thought of the possibility that you might make away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
D5 – found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6 – found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7 – found that the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

A
 B
 C
 D
 TOTAL

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APPENDIX 5

The College Adaption Questionnaire (CAQ) (after Crombag, 1968)

Please Read each Statement and Indicate How Well each Statement Applies

Not Very Applicable 1 2 3 4 5 6 7 Very Applicable

1. I am satisfied with the course of my studies:

1 2 3 4 5 6 7

2. Sometimes I want to give my studies up:

1 2 3 4 5 6 7

3. I often ask myself what I am doing here:

1 2 3 4 5 6 7

4. I would prefer to study elsewhere:

1 2 3 4 5 6 7

5. I have made friends here:

1 2 3 4 5 6 7

6. I do not feel at home here:

1 2 3 4 5 6 7

7. I never feel bored here:

1 2 3 4 5 6 7

8. Sometimes I feel discouraged here:

1 2 3 4 5 6 7

9. I find life as a student pleasant:

1 2 3 4 5 6 7

10. Sometimes I feel lonely here:

1 2 3 4 5 6 7

11. Sometimes I do not know what to do with my time here:

1 2 3 4 5 6 7

12. I am finding it difficult to get used to life here:

1 2 3 4 5 6 7

13. What I miss here is having someone to talk to freely from time to time:

1 2 3 4 5 6 7

14. I am satisfied with my way of life:

1 2 3 4 5 6 7

15. If I feel depressed, my friends will help me to get over it:

1 2 3 4 5 6 7

16. I am finding it difficult to adjust to student life:

1 2 3 4 5 6 7

17. I am glad that I came to study here:

1 2 3 4 5 6 7

18. I feel at home here:

1 2 3 4 5 6 7

APPENDIX 6

The UCLA Loneliness Scale-Revised (R-UCLA) (after Russell, Peplau and Cutrona, 1980)

Please Indicate How Often You Feel the Way Described by each of the Items

1. I feel in tune with the people around me:
often/sometimes/rarely/never
2. I lack companionship:
often/sometimes/rarely/never
3. There is no one I can turn to:
often/sometimes/rarely/never
4. I do not feel alone:
often/sometimes/rarely/never
5. I feel part of a group of friends:
often/sometimes/rarely/never
6. I have a lot in common with the people around me:
often/sometimes/rarely/never
7. I am no longer close to anyone:
often/sometimes/rarely/never
8. My interests and ideas are not shared by those around:
often/sometimes/rarely/never
9. I am an outgoing person:
often/sometimes/rarely/never
10. There are people I feel close to:

often/sometimes/rarely/never

11. I feel left out:

often/sometimes/rarely/never

12. My social relationships are superficial:

often/sometimes/rarely/never

13. No one really knows me well:

often/sometimes/rarely/never

14. I feel isolated from others:

often/sometimes/rarely/never

15. I can find companionship when I want it:

often/sometimes/rarely/never

16. There are people who really understand me:

often/sometimes/rarely/never

17. I am unhappy being so withdrawn:

often/sometimes/rarely/never

18. People are around me but not with me:

often/sometimes/rarely/never

19. There are people I can talk to:

often/sometimes/rarely/never

20. There are people I can turn to:

often/sometimes/rarely/never

APPENDIX 7

Study Questionnaire

INFORMATION FOR SUBJECTS ABOUT PROPOSED RESEARCH PROJECT

You are being asked to participate in a study, the aim of which is to increase our understanding of factors that contribute to psychological and university adjustment in first-year students.

Participation in the study is completely voluntary, and all responses are guaranteed anonymous and confidential.

Participation in the study would require you to complete the following questionnaire, which includes six short, structured measures. This should take approximately 20 minutes.

Feedback will be provided on your questionnaire responses, however, if you have any questions about the study, please contact Paula Graham at Tayside Area Clinical Psychology Department (01382 423000 x4751).

QUESTIONNAIRE
FACTORS CONTRIBUTING TO PSYCHOLOGICAL AND UNIVERSITY
ADJUSTMENT IN FIRST-YEAR STUDENTS

A

Demographic characteristics (please circle where appropriate and do not leave any relevant questions unanswered)

1. Gender: male/female
2. Age (in years):
3. Nationality:
4. Marital status: single/in a relationship/engaged/married/separated/divorced
5. Residential status: living alone/living with friends/living with partner/living with parents
6. Current academic status (grade at which currently functioning):

B

Please circle yes or no whether the items in the following list are or were a source of difficulty affecting your well-being at university

1. lack of previous training for university life:
yes/no
2. lack of framework and direction in academic studies:
yes/no
3. coursework difficulties:
yes/no
4. coursework overload:
yes/no

5. having to manage family responsibilities and academic studies at the same time:

yes/no

6. financial difficulties:

yes/no

7. practical difficulties (e.g., transport difficulties):

yes/no

8. accommodation/roommate difficulties:

yes/no

9. lack of support and/or co-operation from fellow students:

yes/no

10. lack of meaningful contact with people:

yes/no

11. loneliness:

yes/no

12. homesickness and/or depression:

yes/no

13. lack of counselling services:

yes/no

14. racial/national discrimination and/or prejudice:

yes/no

15. religious difficulties:

yes/no

16. other difficulties:

yes/no (if yes, please specify)

C

1. In general, how satisfied are you with your current life?

very satisfied/satisfied/unsure/dissatisfied/very dissatisfied

2. In general, how happy are you with your current life?

very happy/happy/unsure/unhappy/very unhappy

3. In general, how optimistic do you feel about your future adjustment to university life?

very optimistic/optimistic/unsure/pessimistic/very pessimistic

D

Do you have any suggestions as to what you believe could improve your life while at university?

APPENDIX 8

Students suggestions as to what they believe could improve their lives while at university

Do you have any suggestions as to what you believe could improve your life while at university?

1. Financial

Getting a job to get more money

Maybe more financial support would be better, give less to worry about

Money

Bringing back grants, as a loan cheque is not a lot to live off

More money

Free books and food

Not having to pay tuition fees

Lots more money

Better income

More money

More money

Financial assistance

Lots of money

More money, not having to pay fees

Better financial support

Student grants

Not having to worry about paying back fees and loans

Improving my financial situation

More money, no tuition fees, more grants instead of student loans

Actually having some money

More financial support, e.g. grants

Having more financial support, i.e. grants

More financial support

More money

Fewer financial pressures

More financial help available to students without pressure from banks to pay back by a certain date if using overdrafts

Better funding would reduce worry and increase concentration

Fewer financial worries

Re-instating grants

More money

2. Academic

Less assignment overload

More structure to timetables etc., more information - better communication between lecturers and students

More support with my spelling difficulties, emotionally and academically

Nursery facilities at Abertay

Access to intranet from home p.c.

Access to intranet at home would save some time away from home

A bouncy castle club

Comfortable seats in lecture theatres

Better layout of timetables etc.

Some lecturers should be easier to approach

Clearer instructions for university coursework

Better timetable

3. Social

Having a higher level of intelligence

Being more organised

Getting my university work organised

Fewer family hassles

Working out better study time, to fit in with family life

Organising my work and socialising more

Widening my social circle

Meeting people who aren't students

Getting more sleep

Sex

More friends

Gaining more self-confidence

4. Practical

Living closer to home/friends/fiancee

Owning a house

Getting a car

Leaving home

Being able to afford to live in Dundee, rather than having to travel

Being able to break the accommodation contract if having problems with flatmates

Cheaper transport. 'Student Savers' aren't any benefit as I travel before 10 o'clock to lectures and tutorials and these do not cover me, so I have to buy a ticket at full price

My friends and I all travel a fair distance to university every day. It is expensive and time-consuming and the timetables have not taken into account the hundreds of other students who are in the same position. I have huge gaps in my timetable, lecturers sometimes don't turn up or I spend two hours travelling for a 50-minute class

Less travelling

Being closer to home, having family and closer friends around me for support

Getting out of halls of residence

Finding flatmates and a nice flat near university